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Fig 1

A

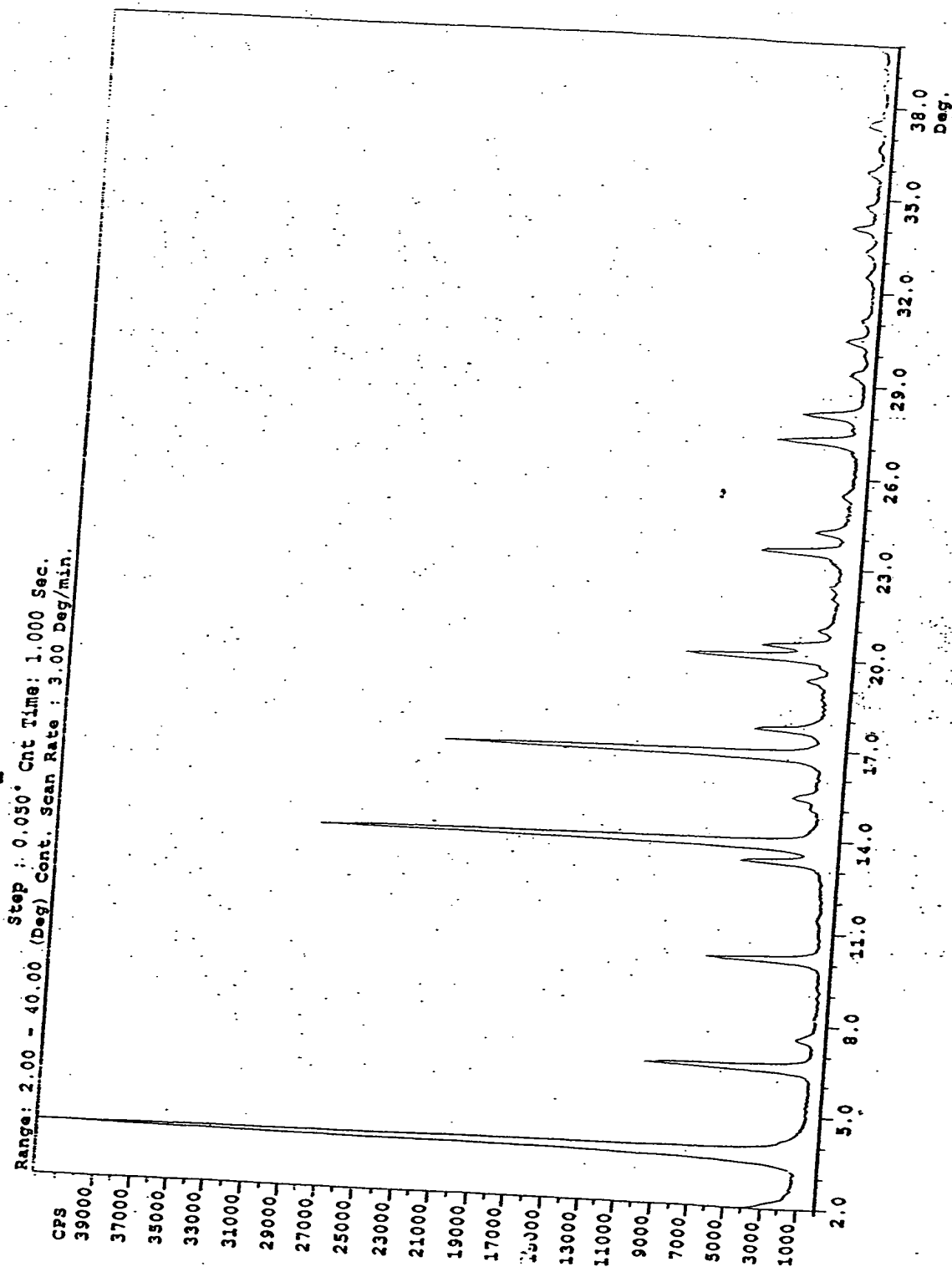


Fig. 2 C

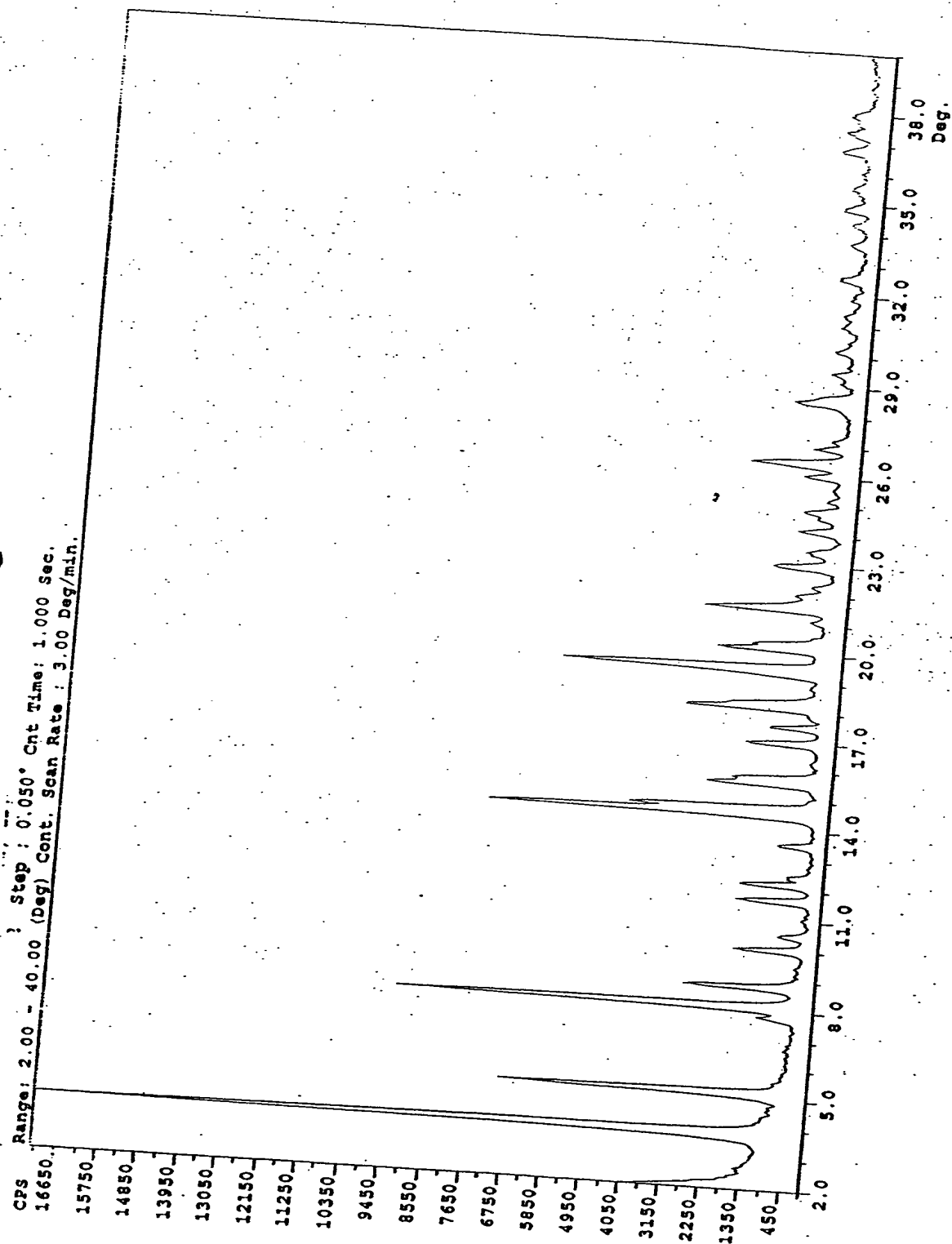


Fig 3 D

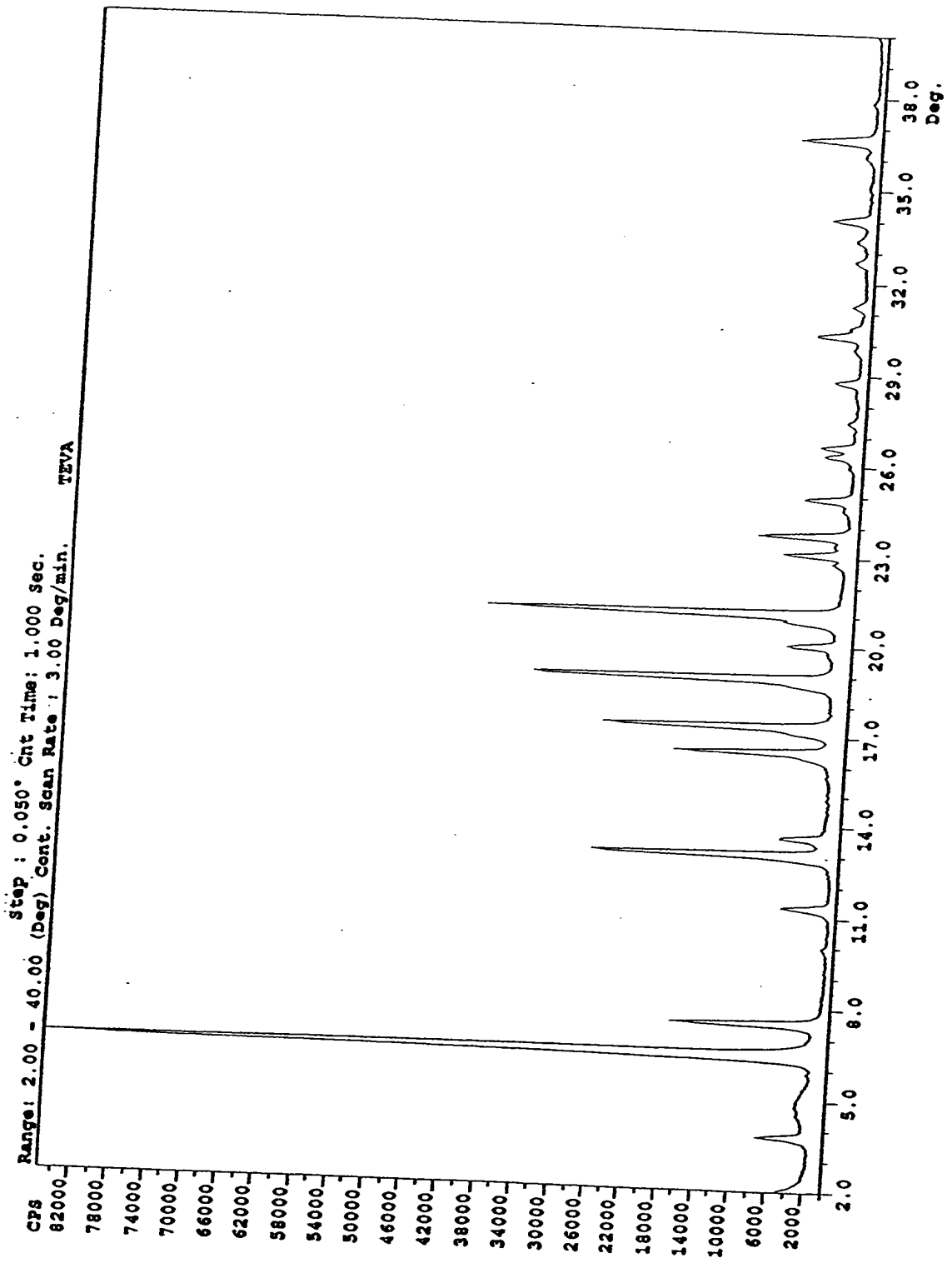


Fig 4 .E

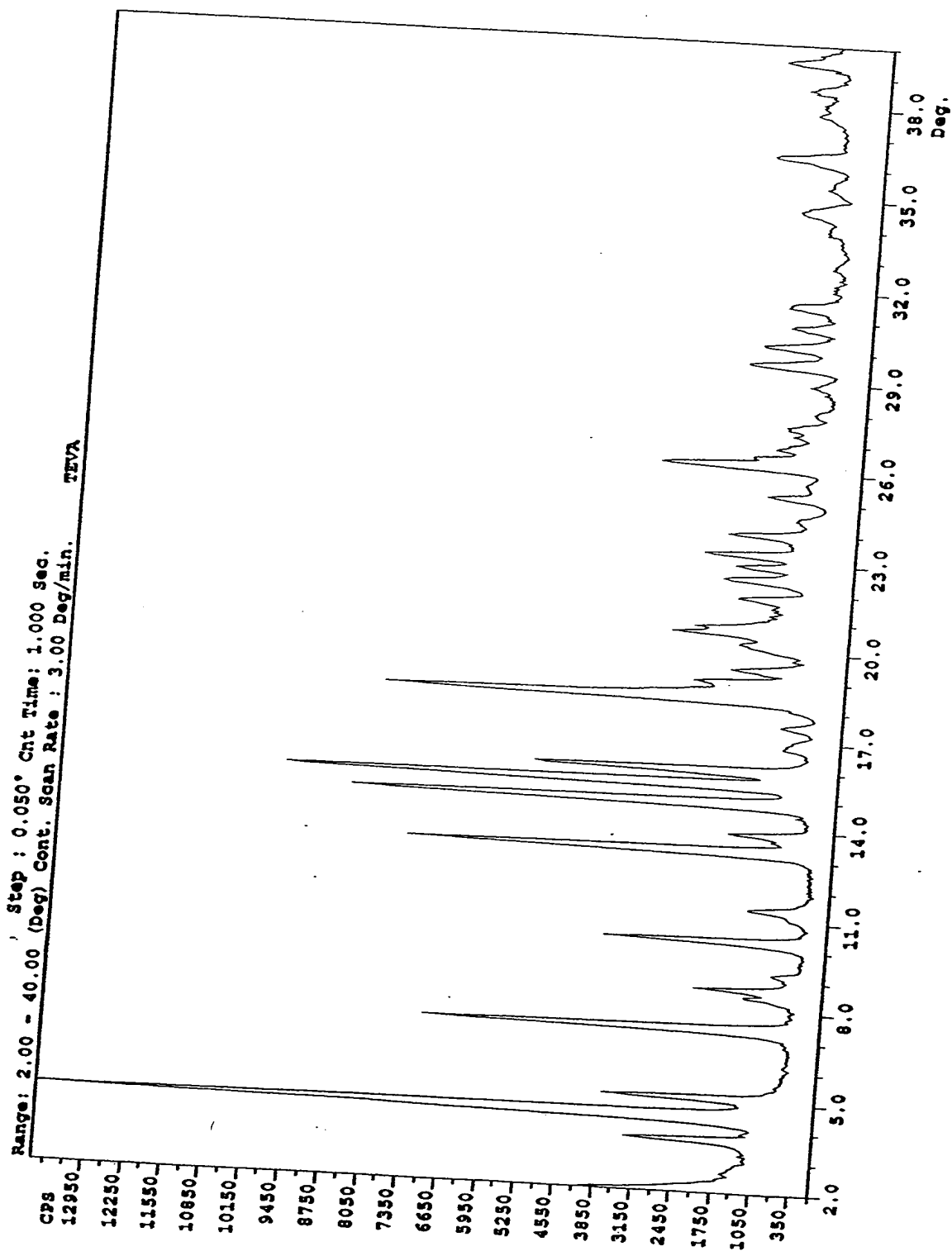


Fig. 5

F

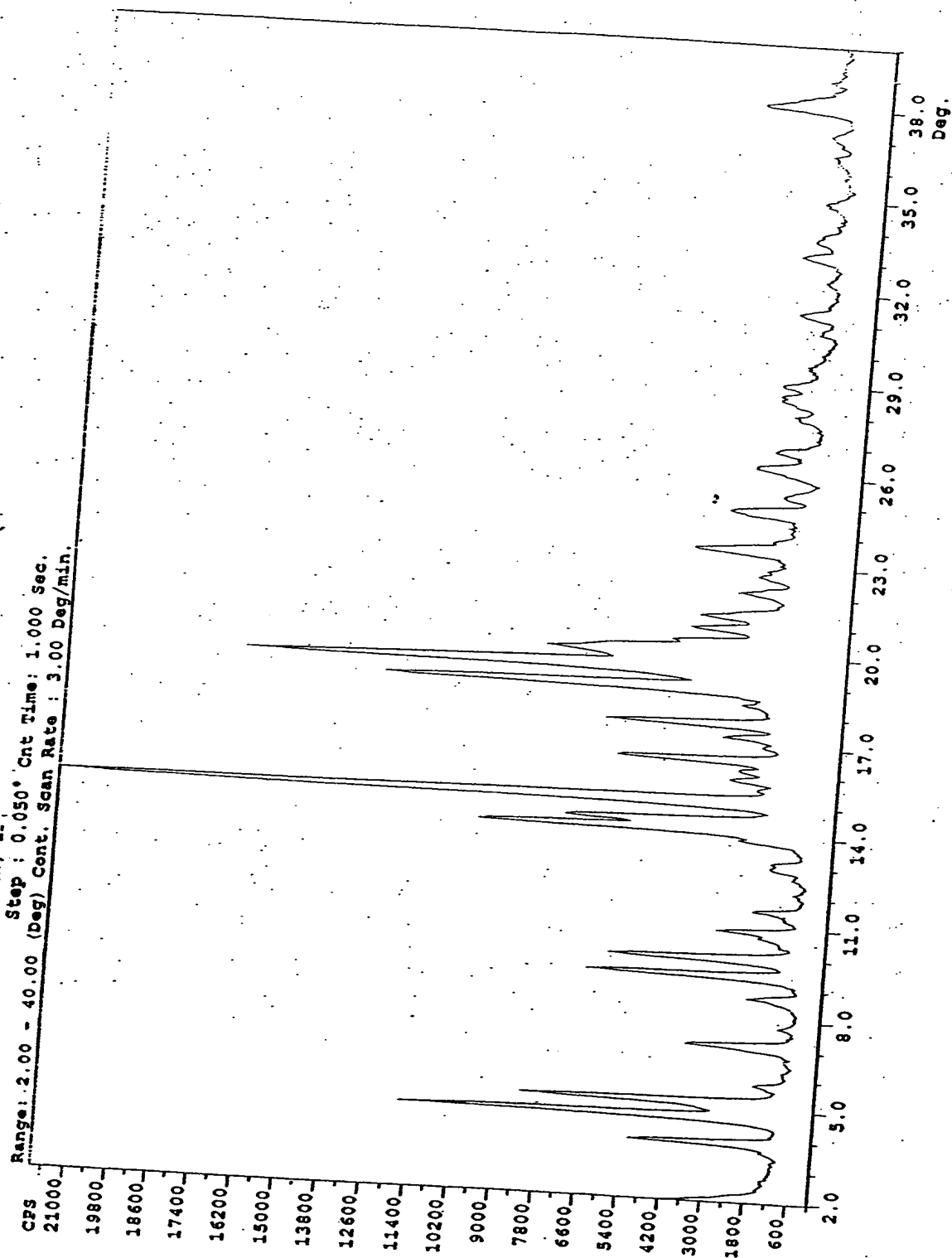


Fig. 6

G

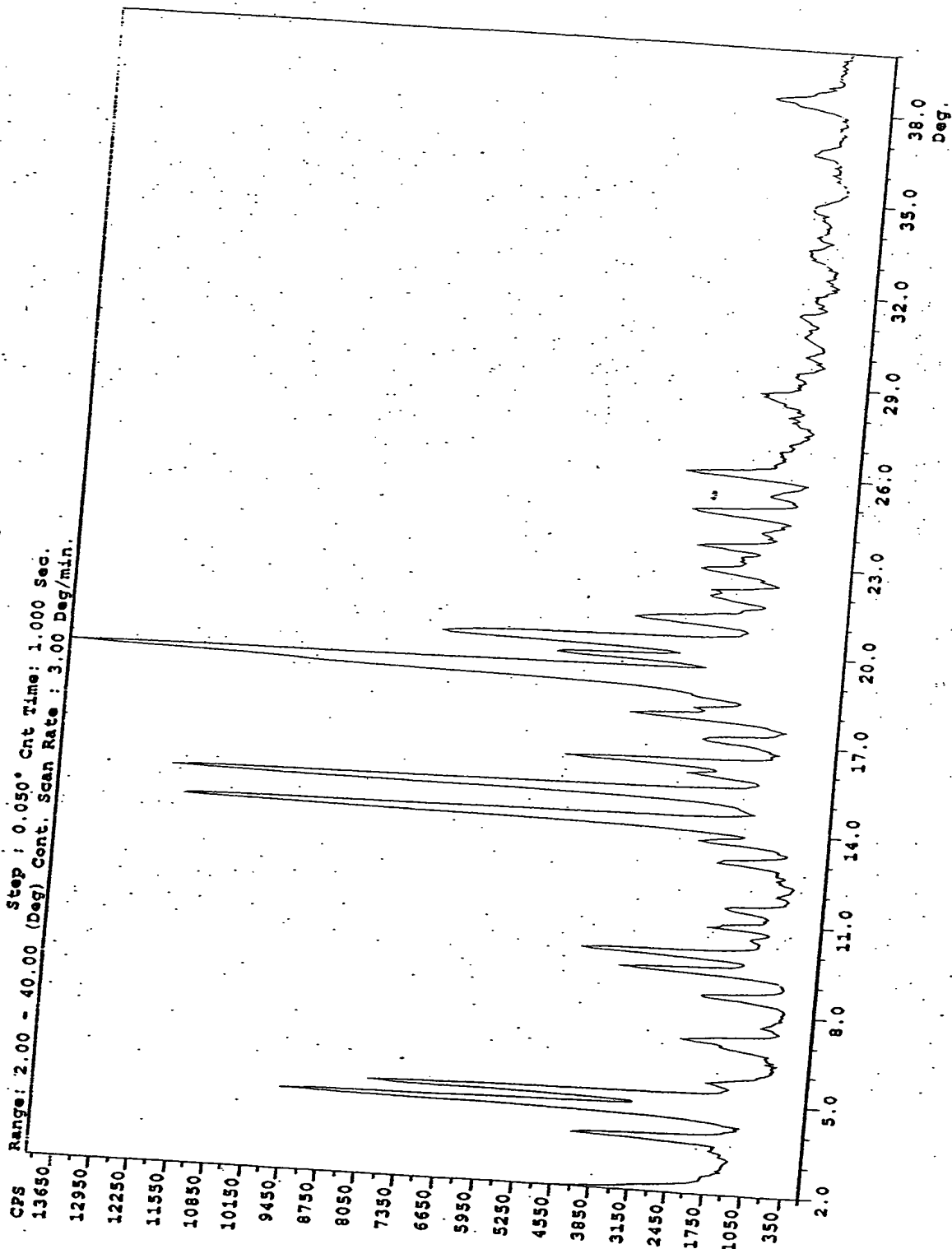


Fig 7 I

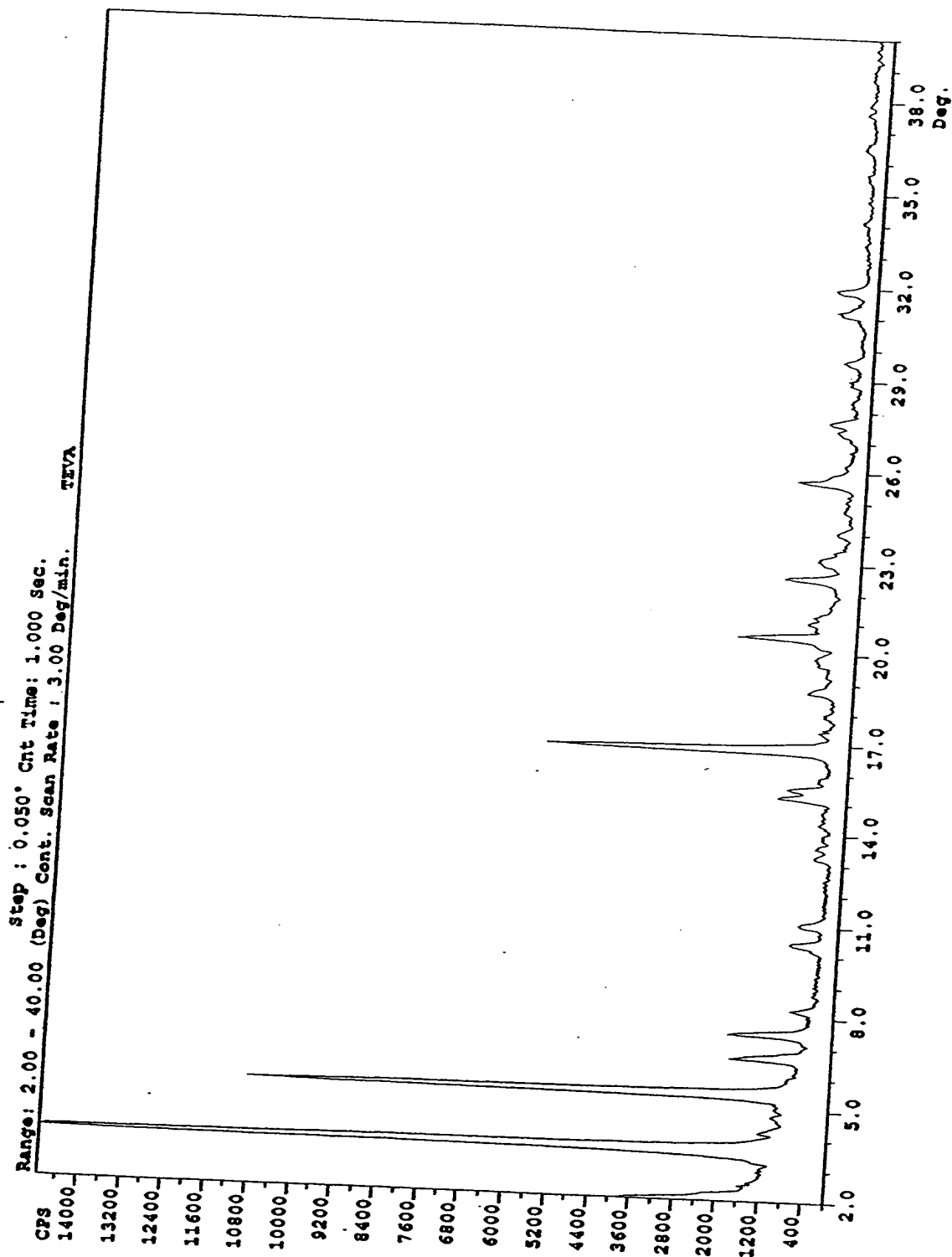


Fig. 8 5

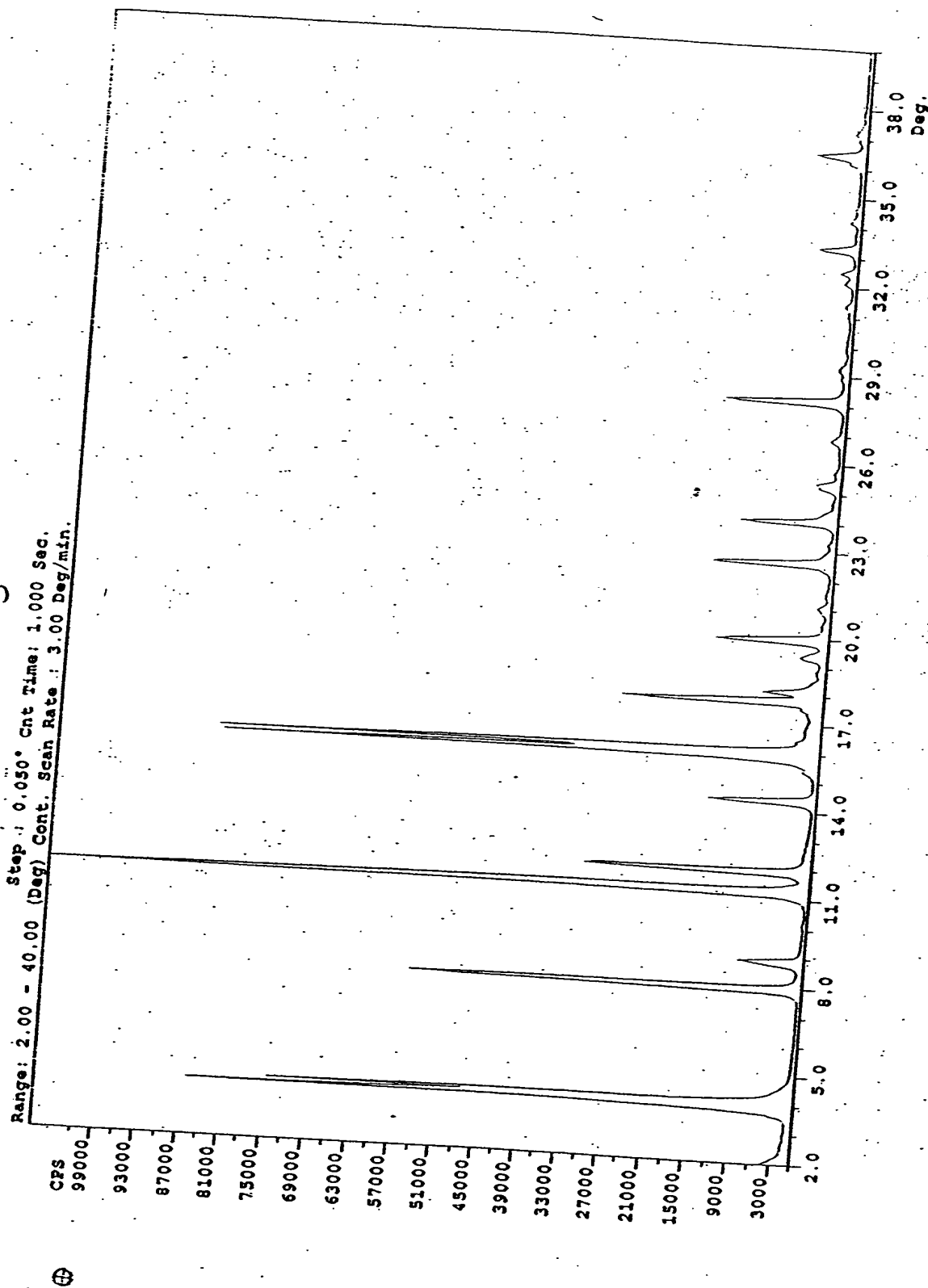


Fig. 9

K

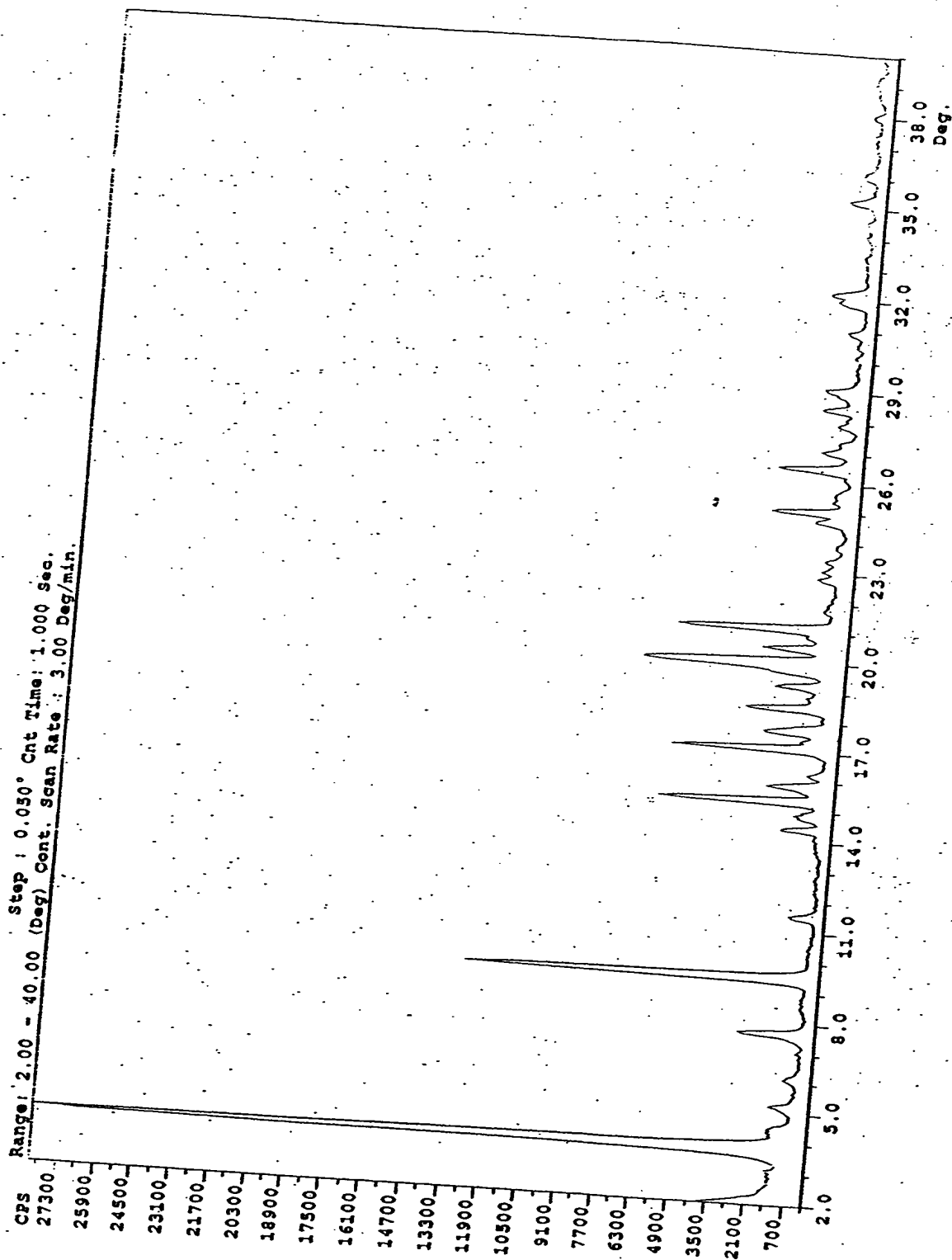


Fig. 10 L

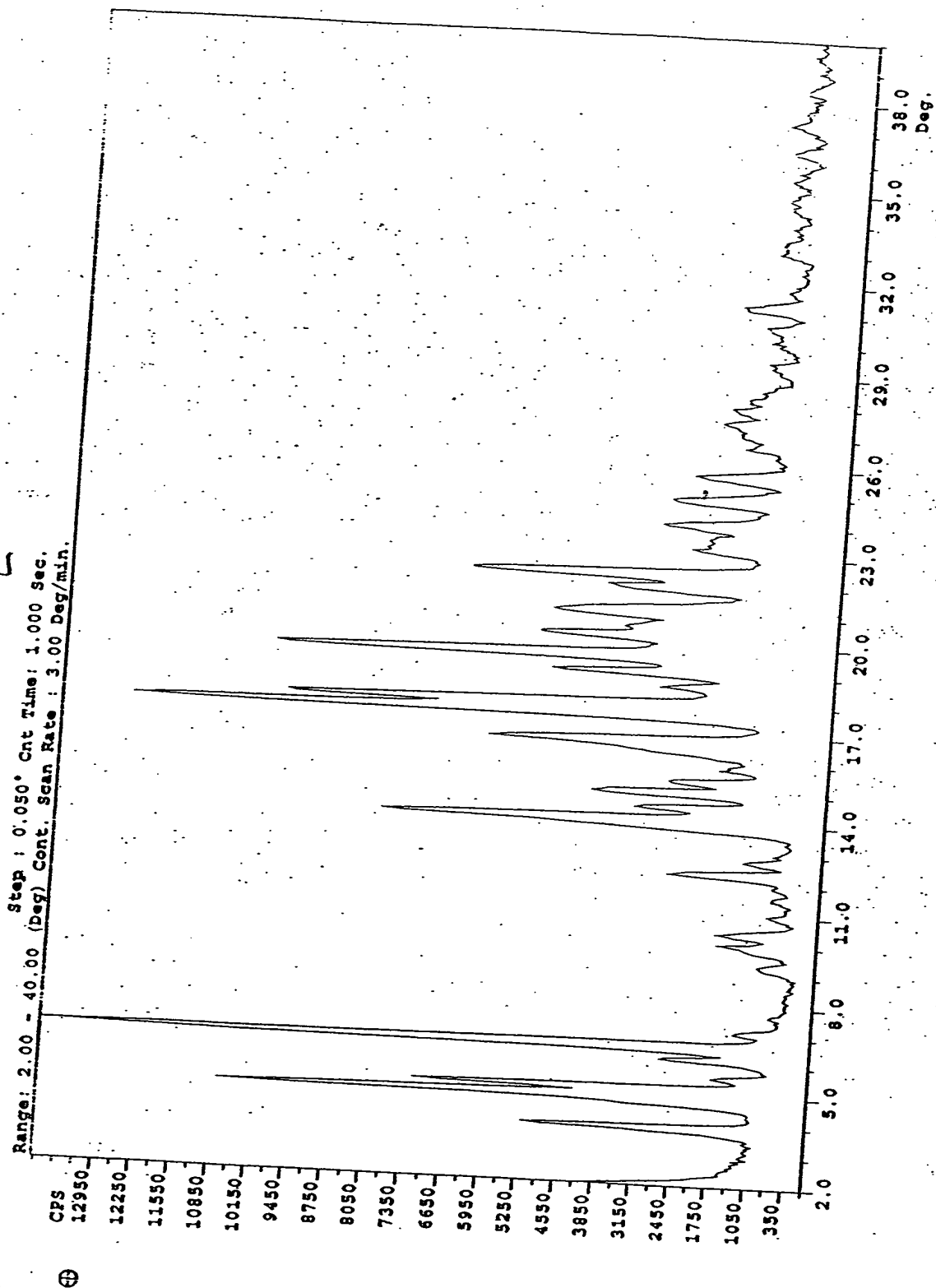


Fig. 11

M

Range: 2.00 - 40.00 (Deg) Step: 0.050° Cnt Time: 1.000 Sec.
Cont. Scan Rate: 3.00 Deg/min.

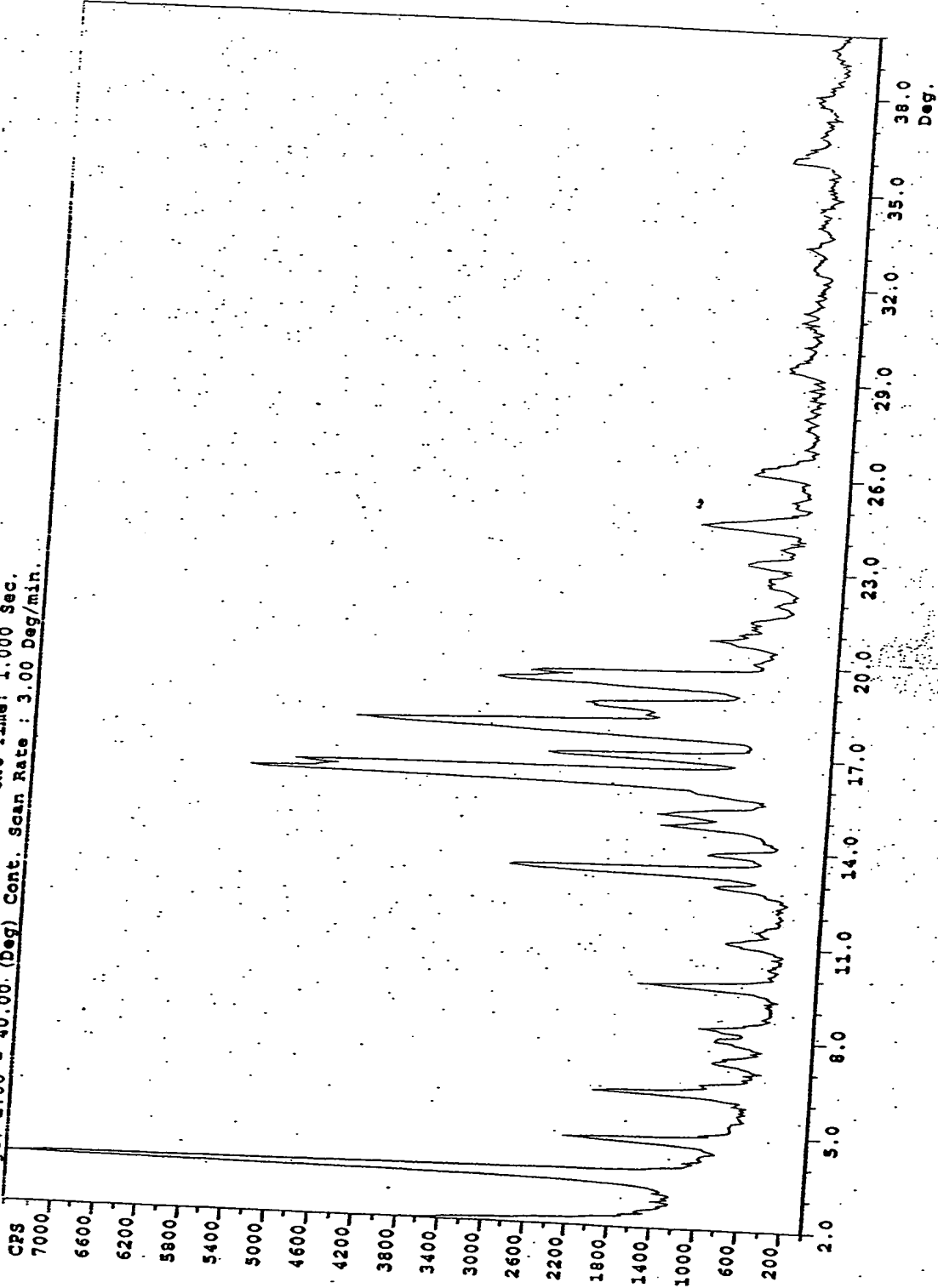


Fig. 12

N

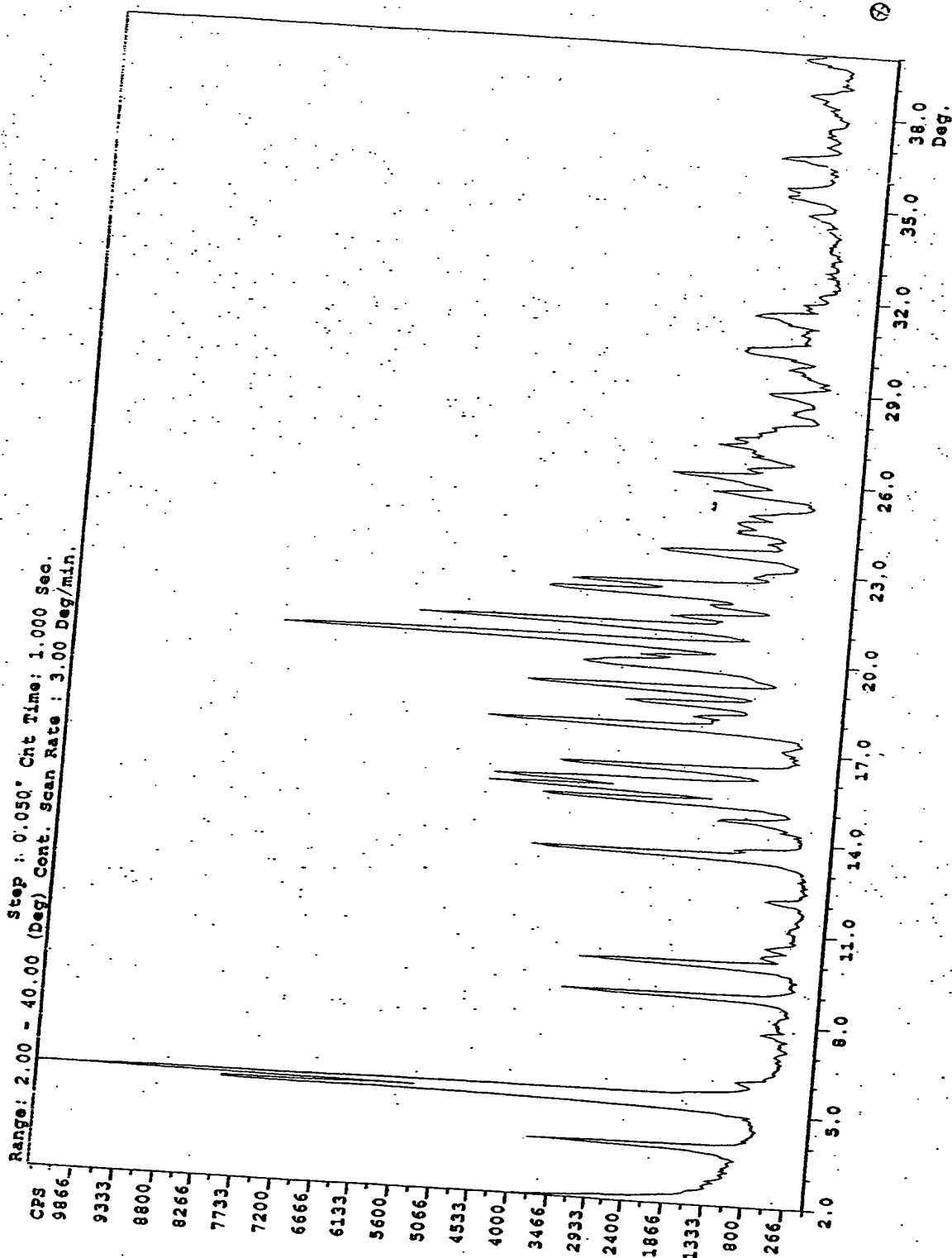


Fig. 13 0

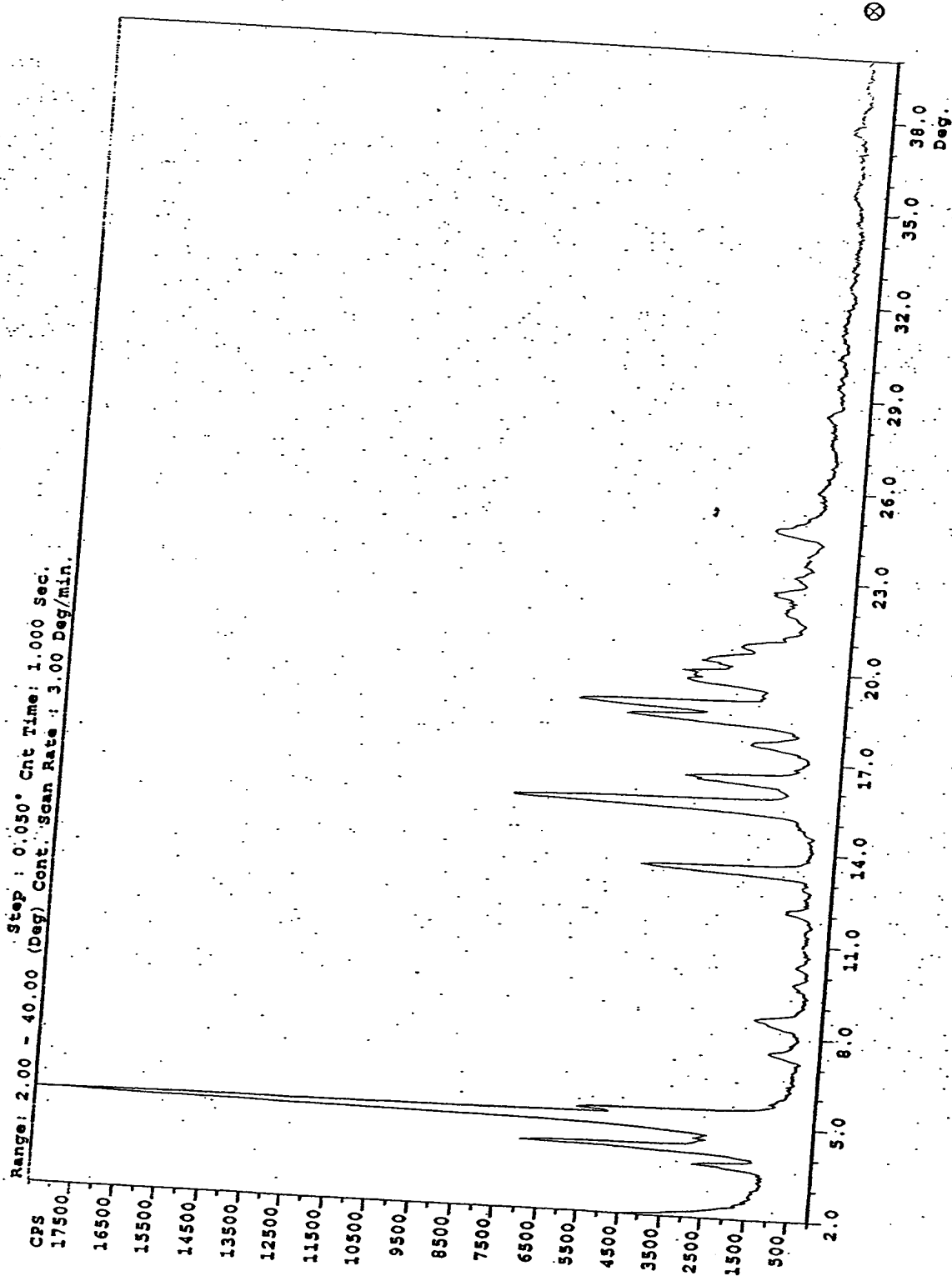


Fig. 14

P

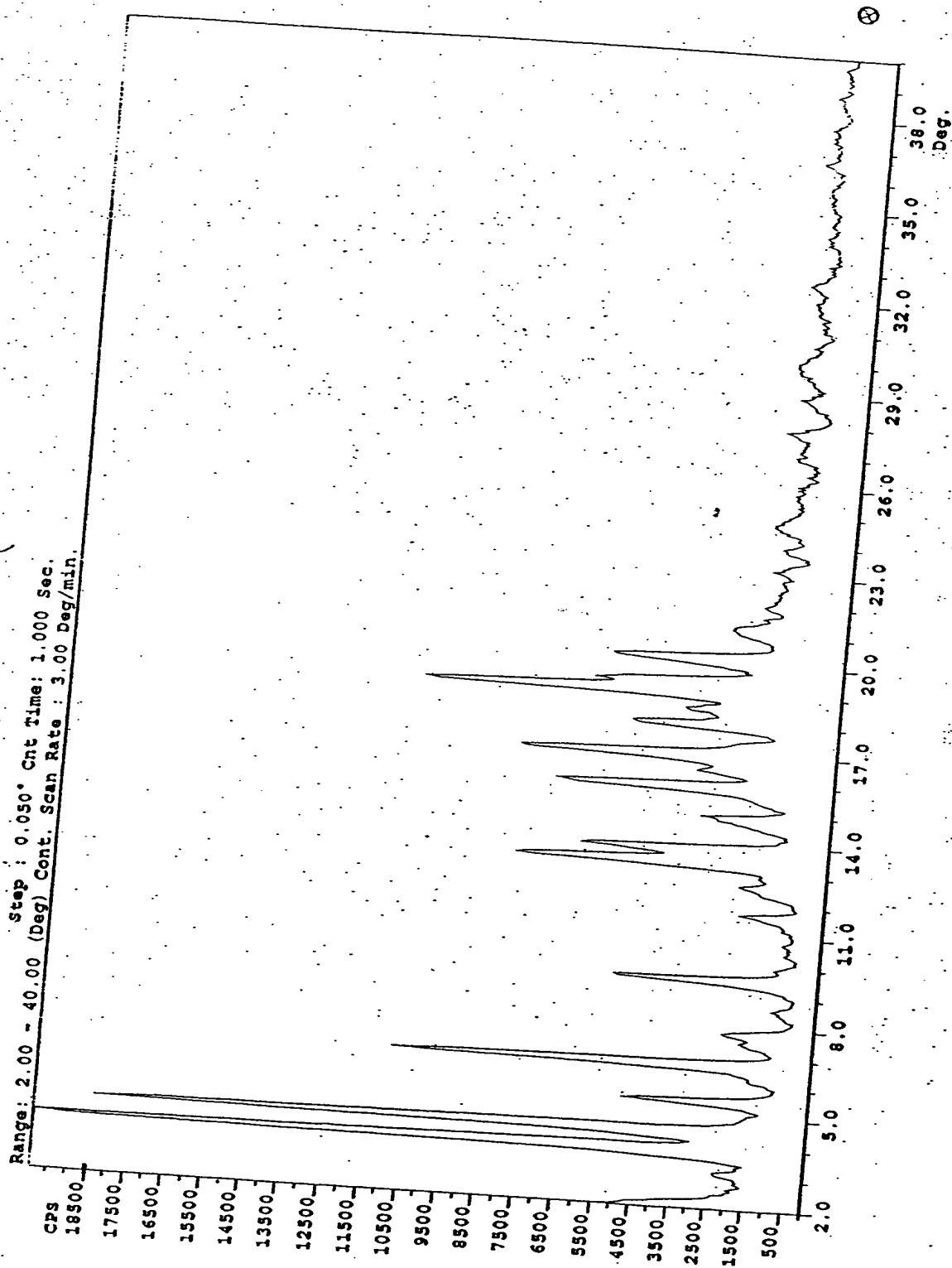


Fig. 15 Q

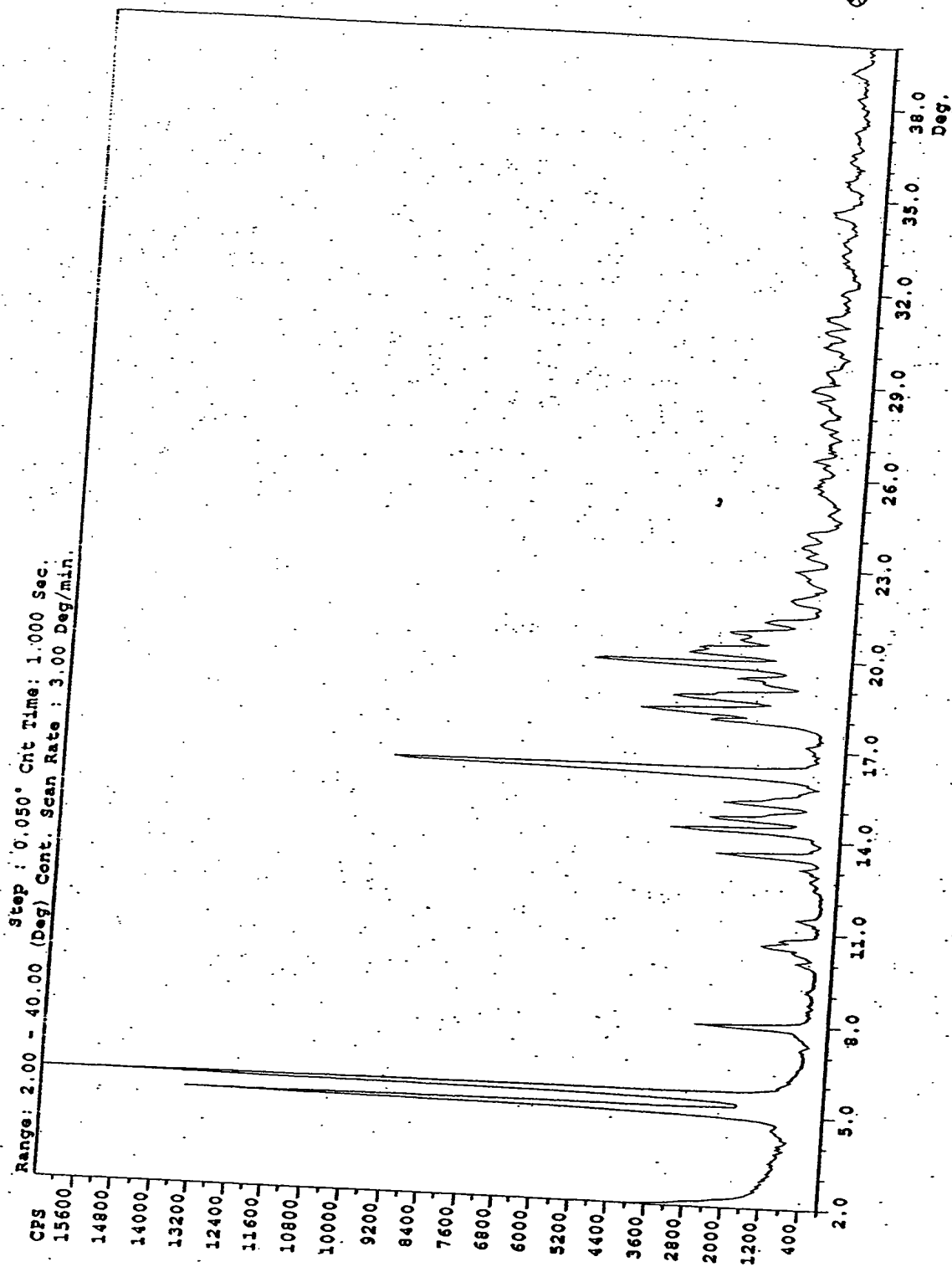


Fig. 16

T

Range: 2.00 - 40.00 (Deg) Cnt Time: 1.000 Sec.
Step: 0.050 (Deg) Cnt. Scan Rate: 3.00 Deg/min.

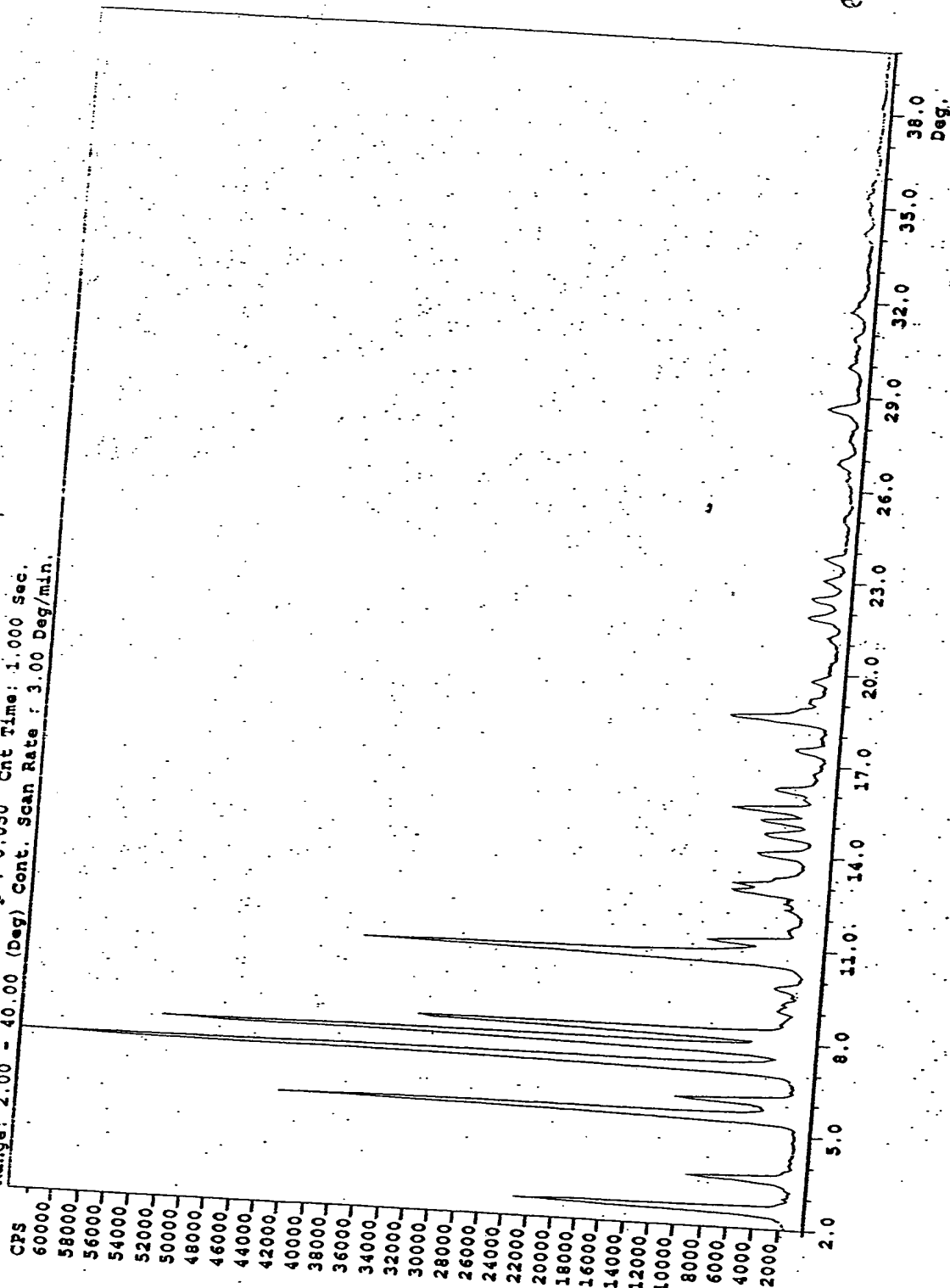


Fig. 17 u

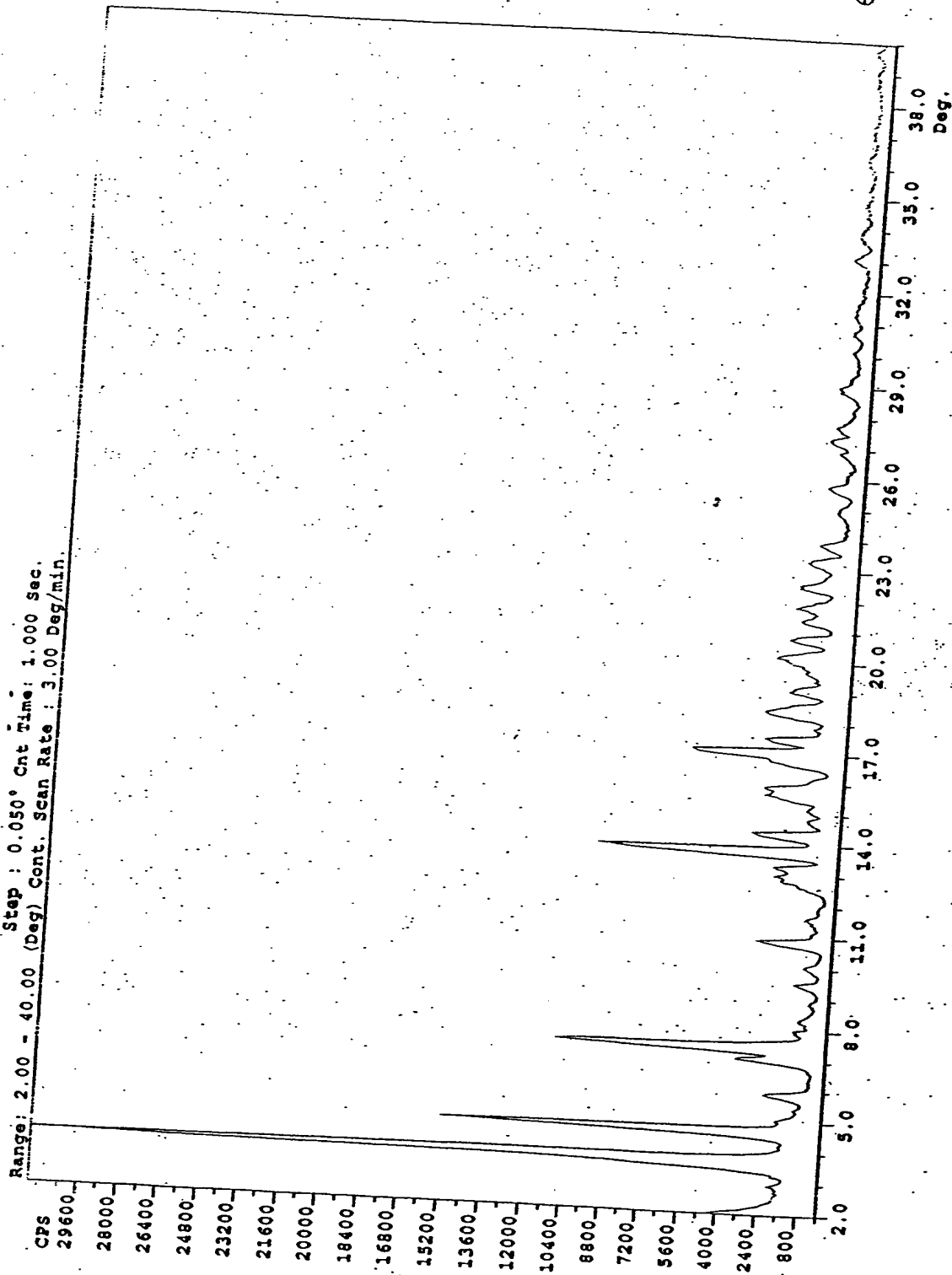


Fig. 18

✓

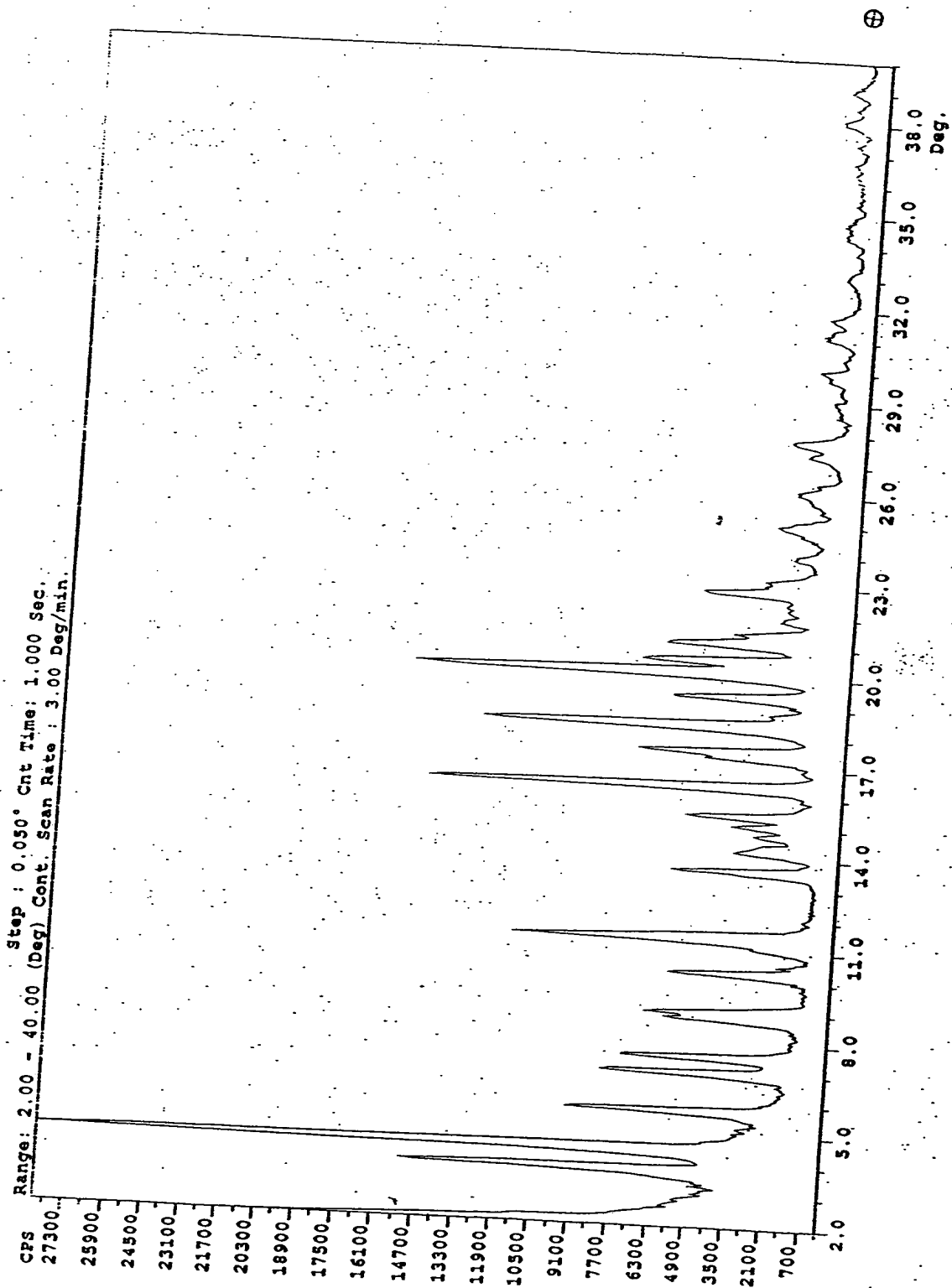


Fig 19

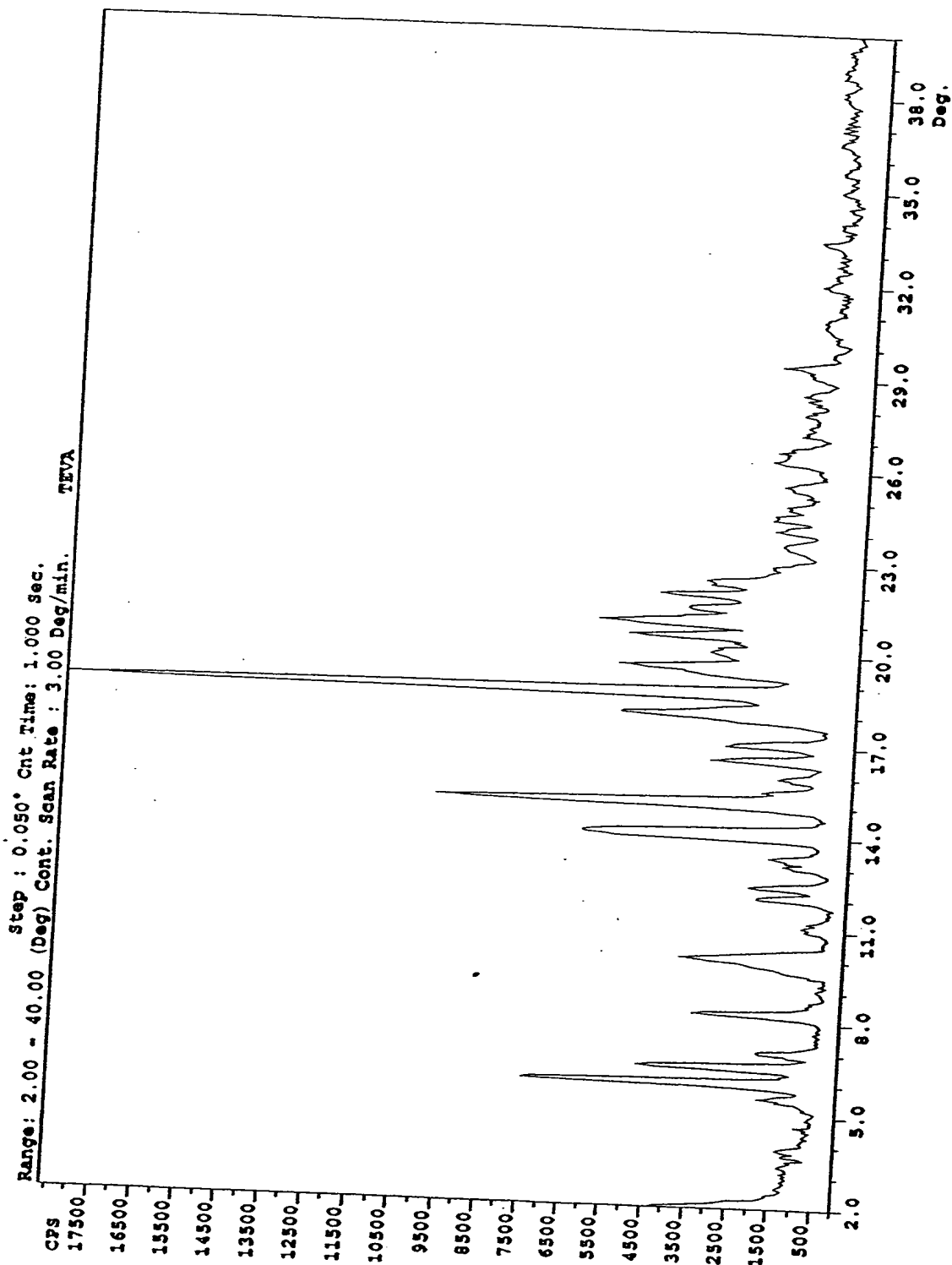


Figure 20 - Nateglinide Form Z

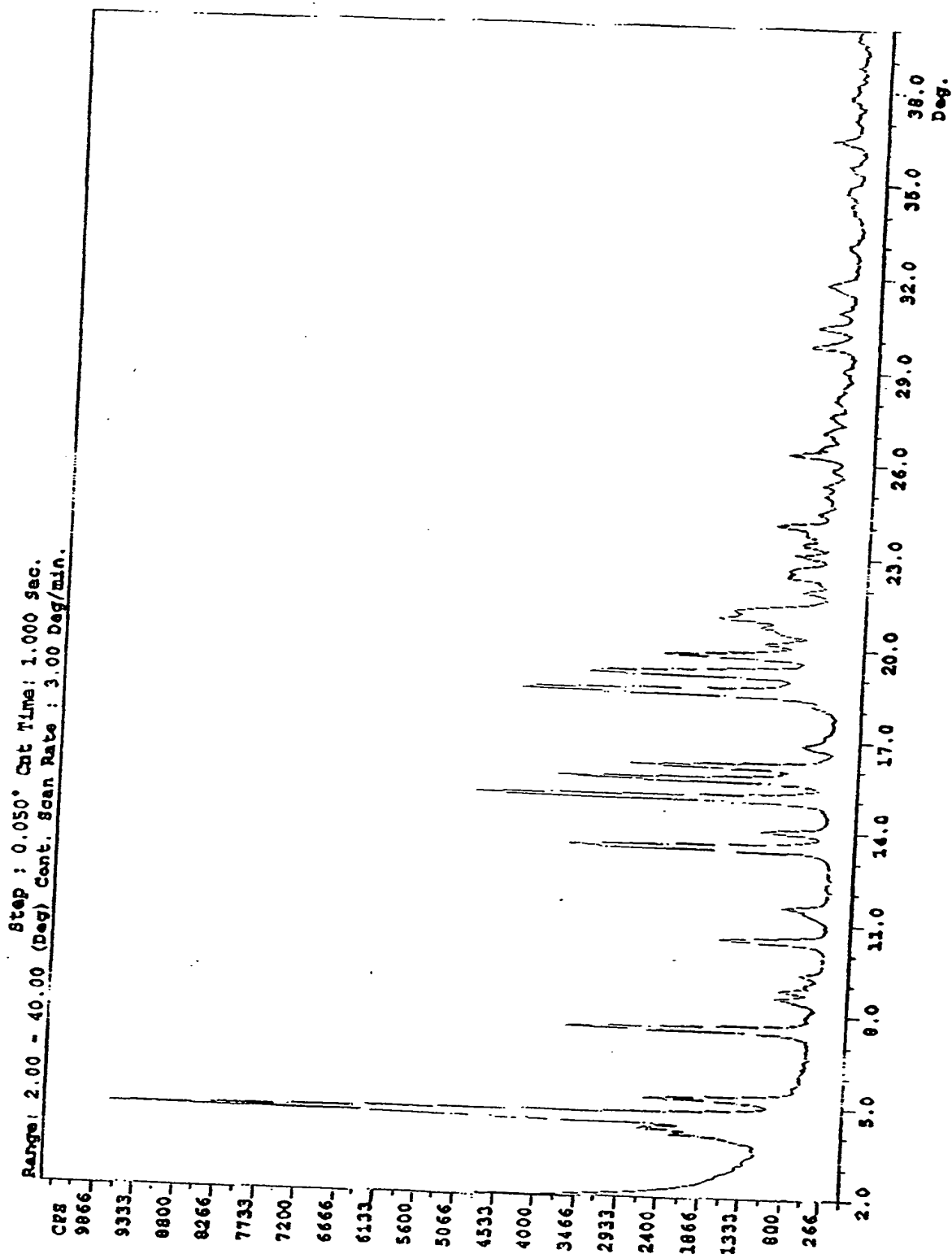


fig 2b x

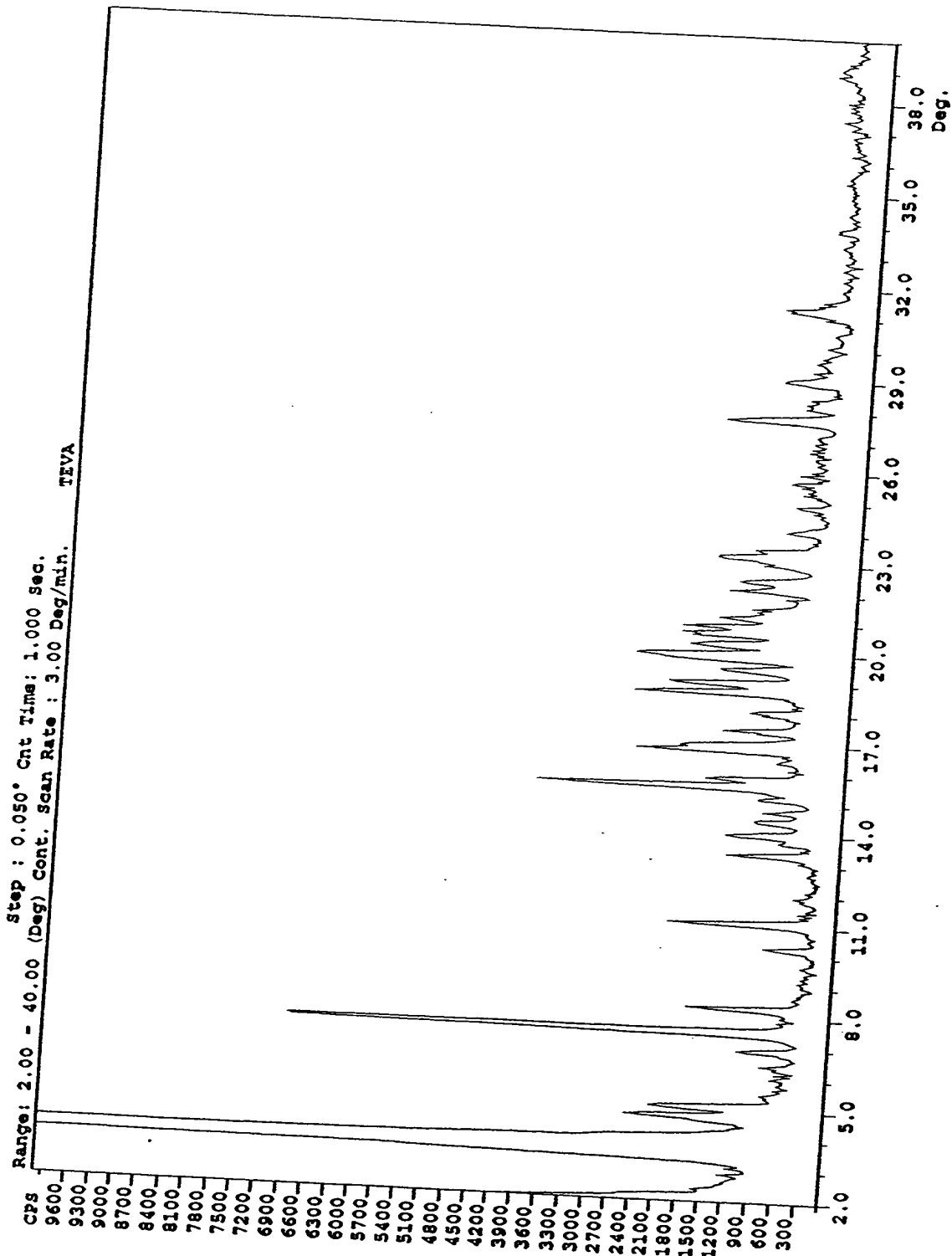


Fig. 2a B

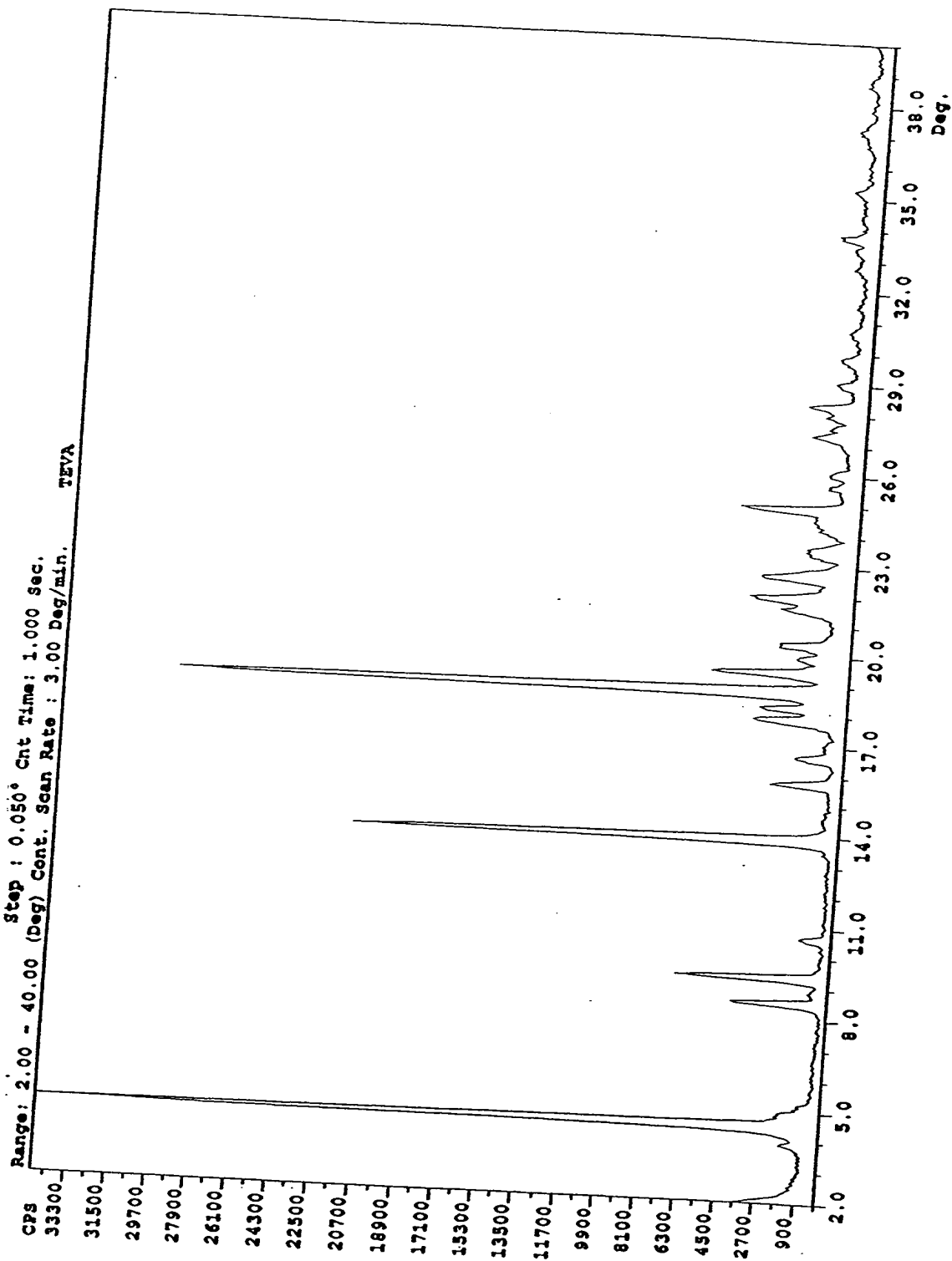


Fig 23 10

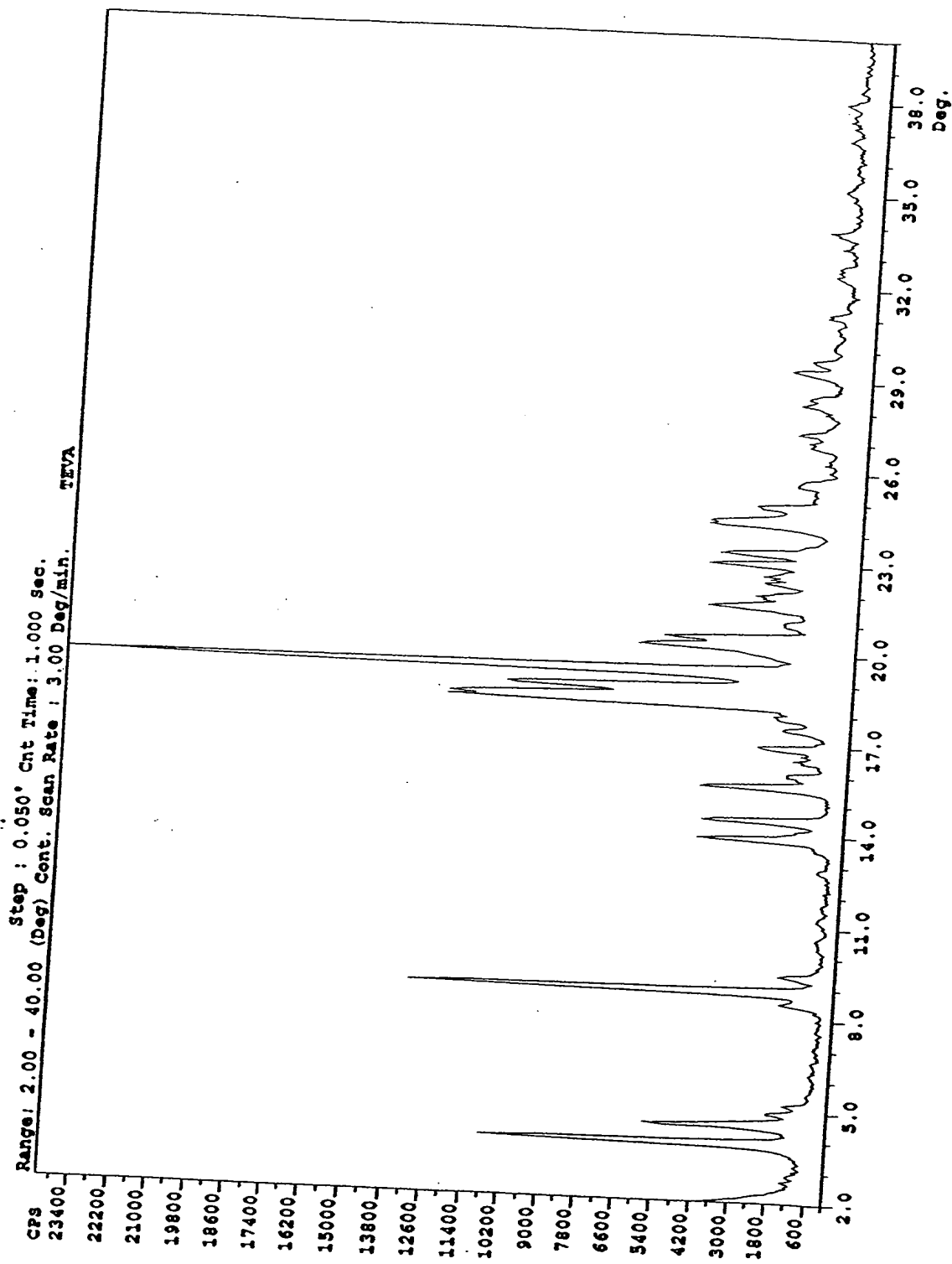


Fig 24

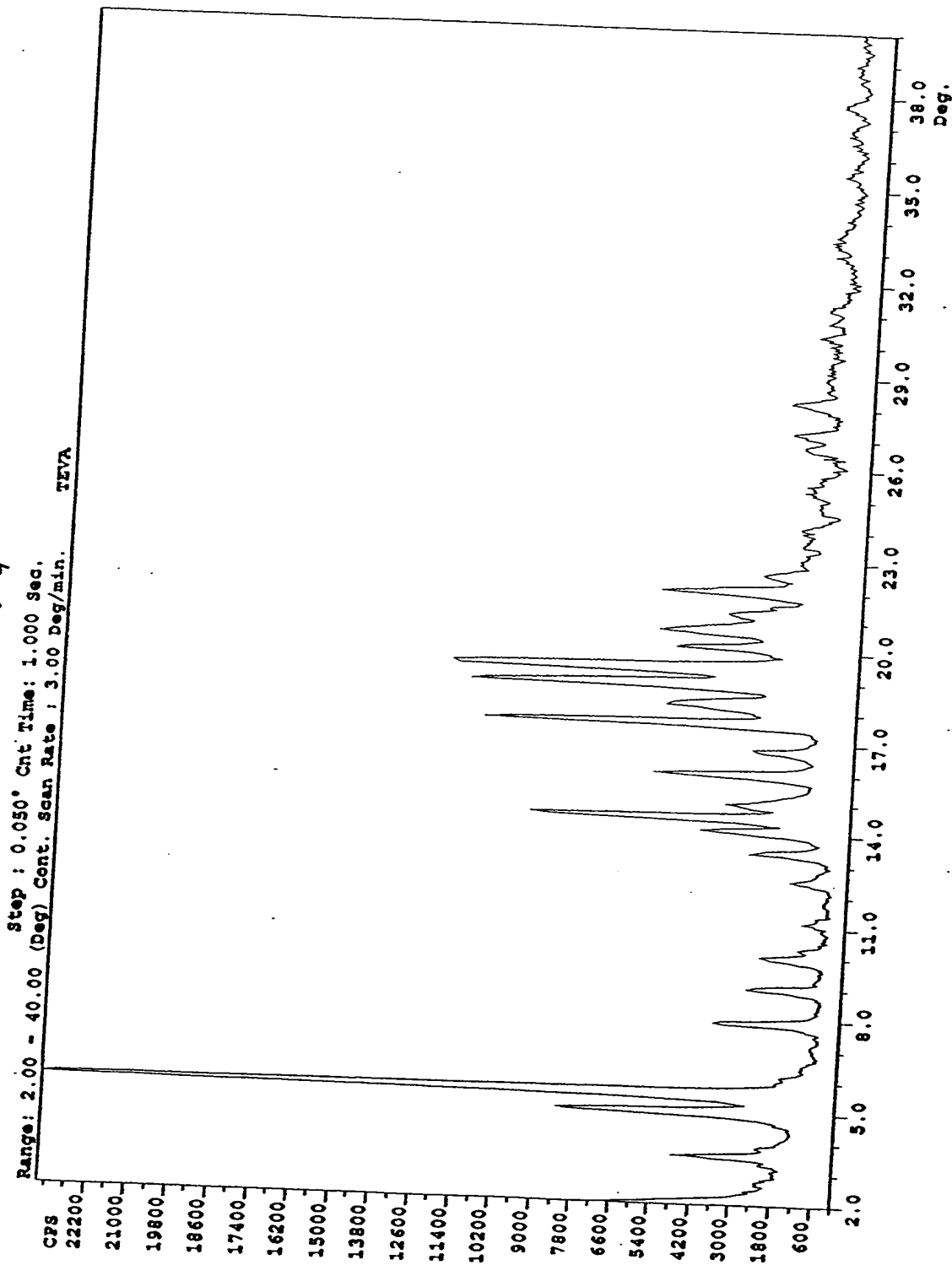


Fig 25

3

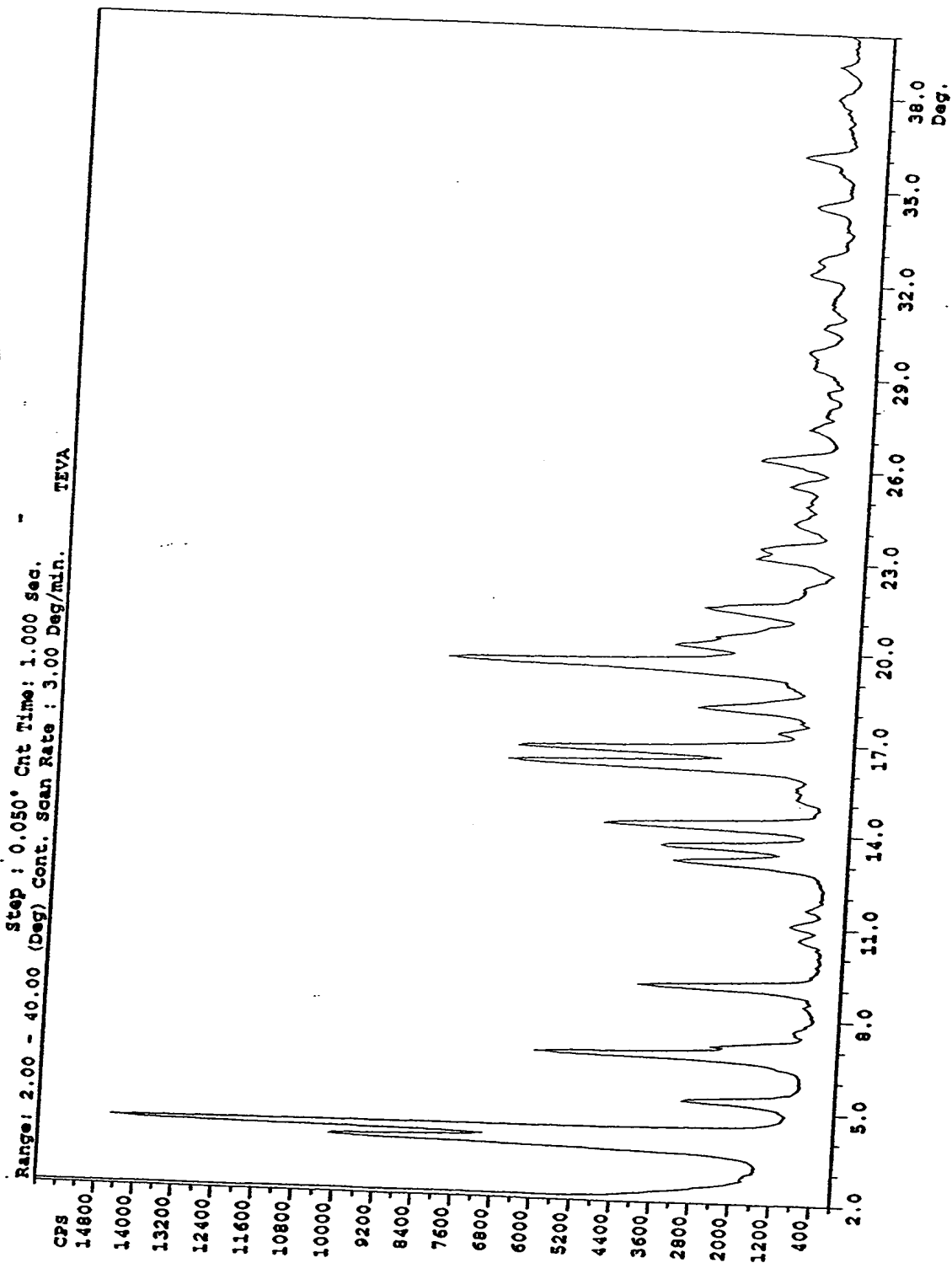
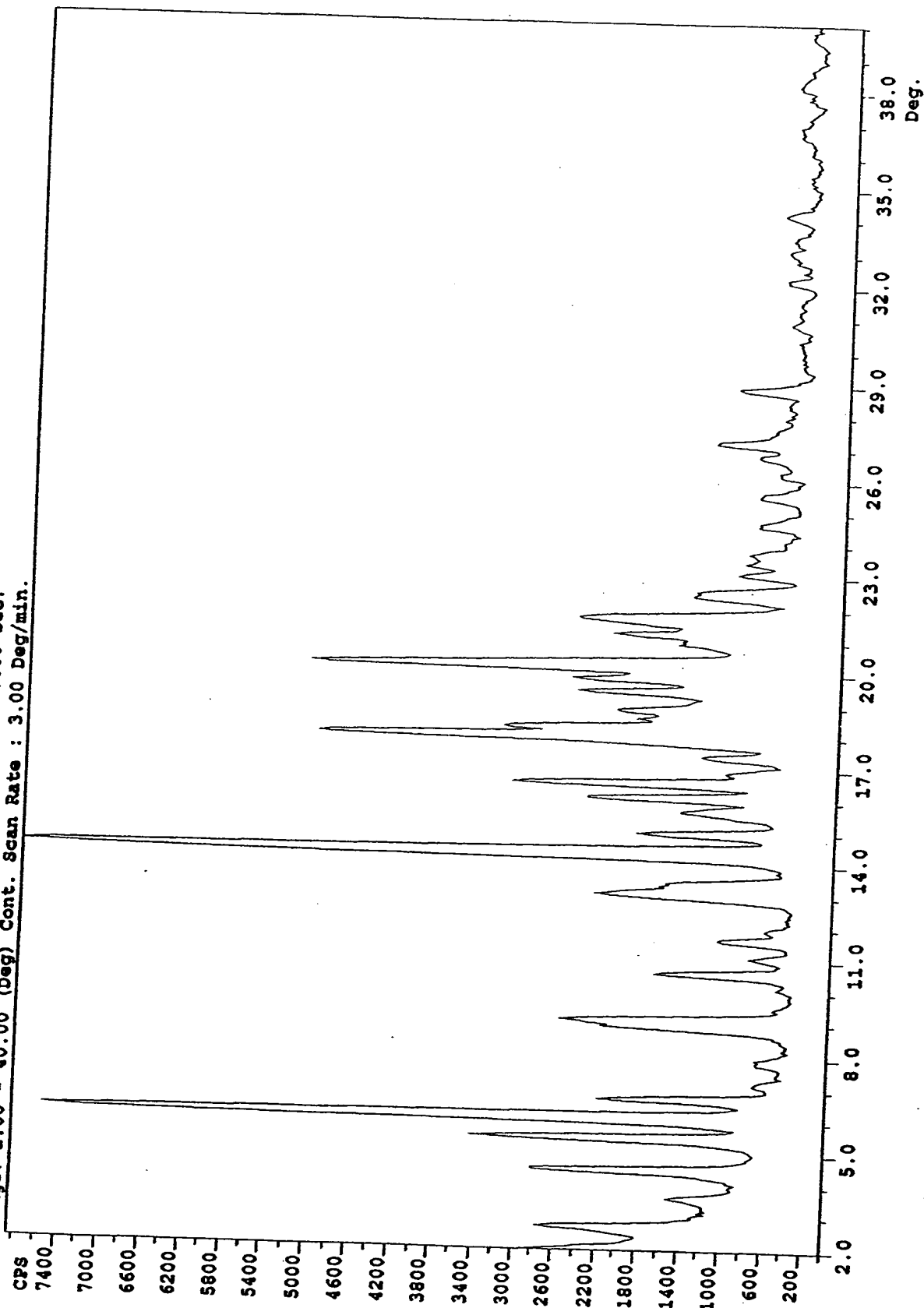


FIGURE 26

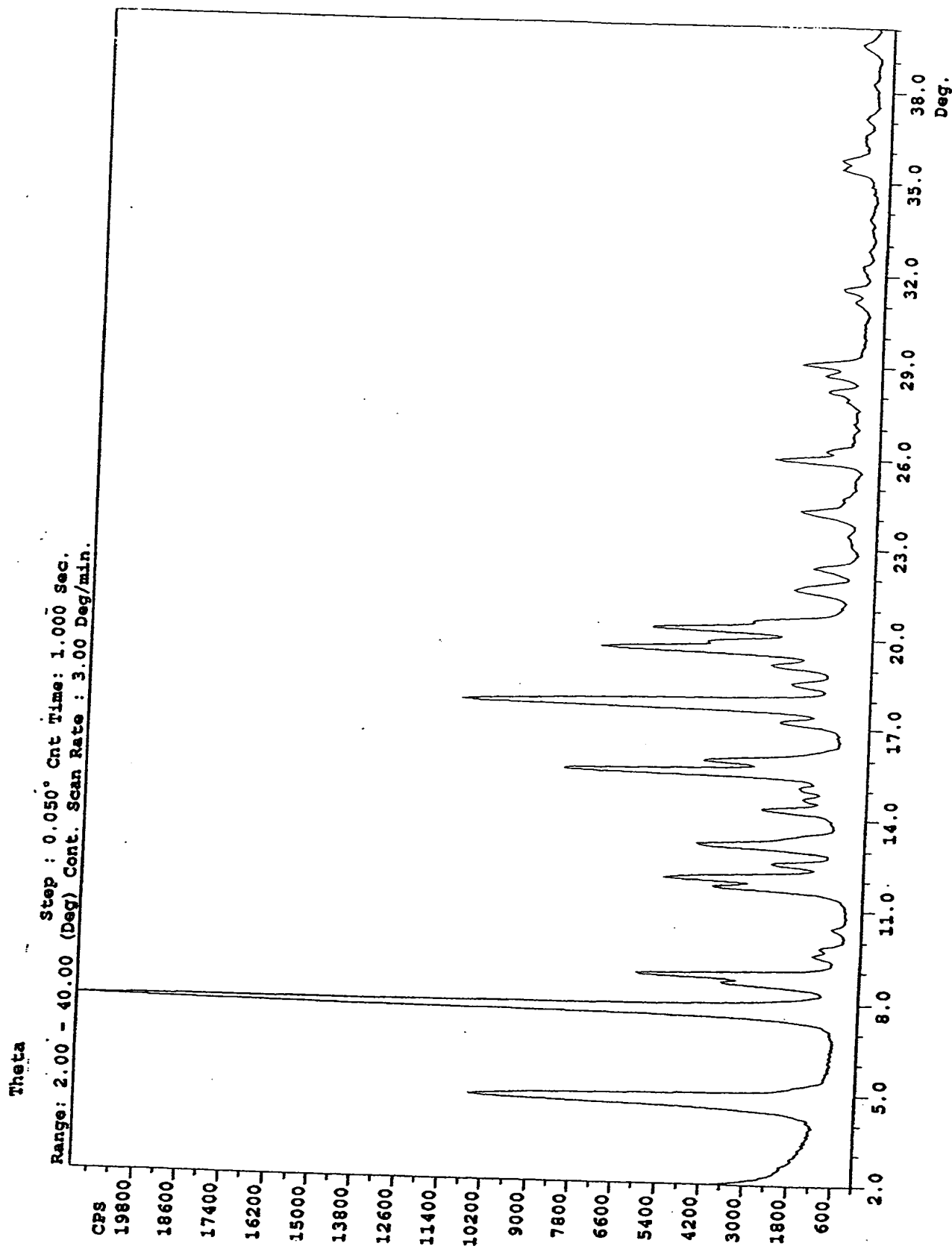
Sigma

Range: 2.00 - 40.00 (Deg) Cnt Time: 1.000 Sec.
Step: 0.050° Cnt Rate: 3.00 Deg/min.



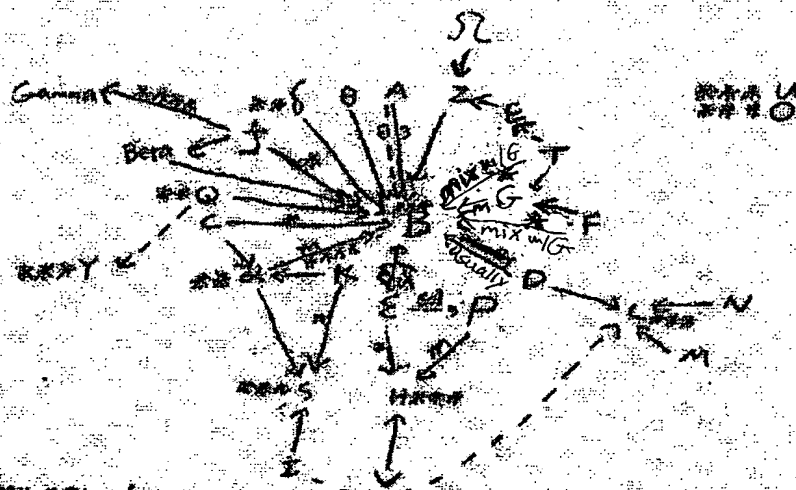
Form (5)

FIGURE 23



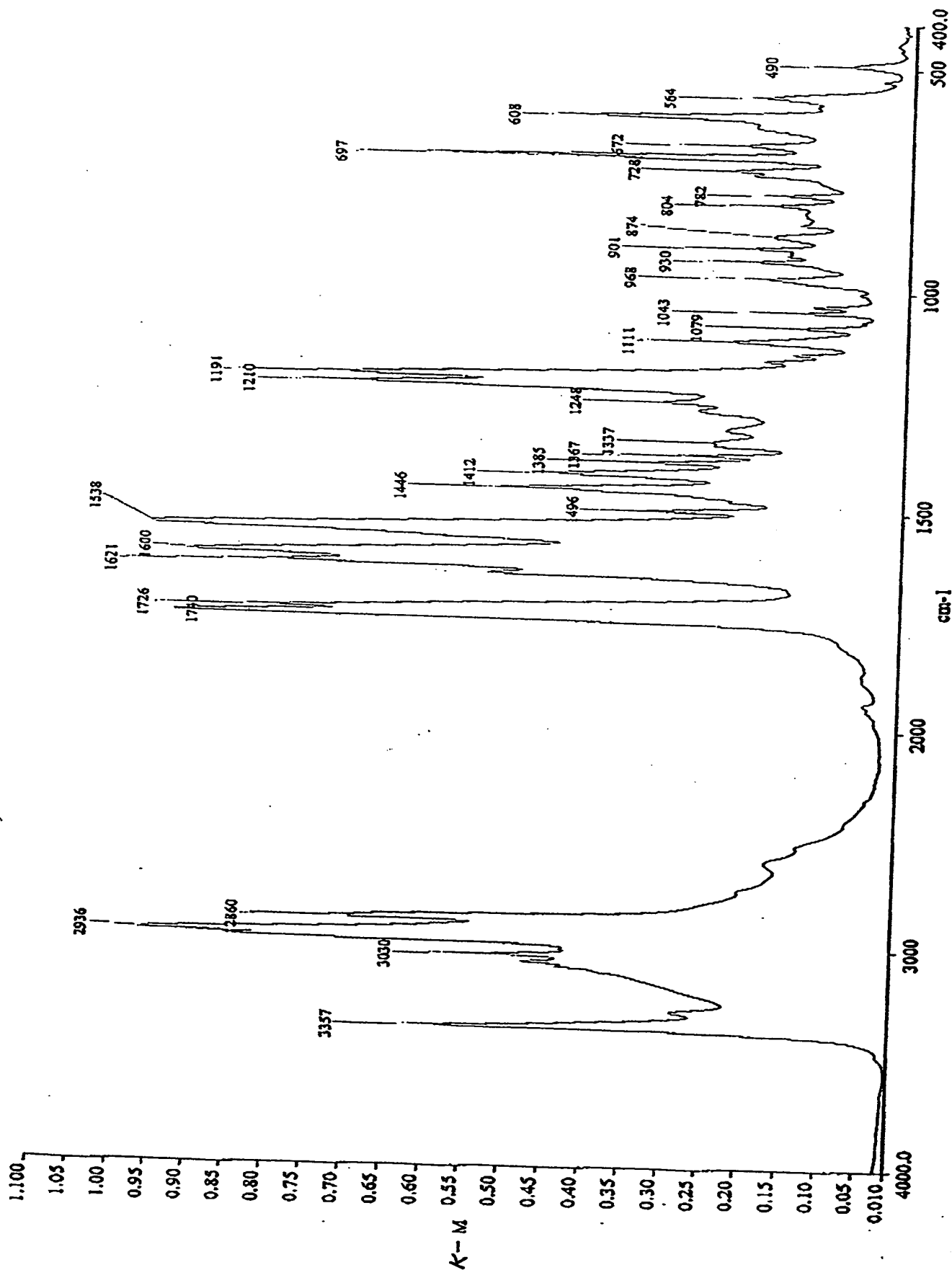
Form 8

Figure 28 - Thermal stability chart



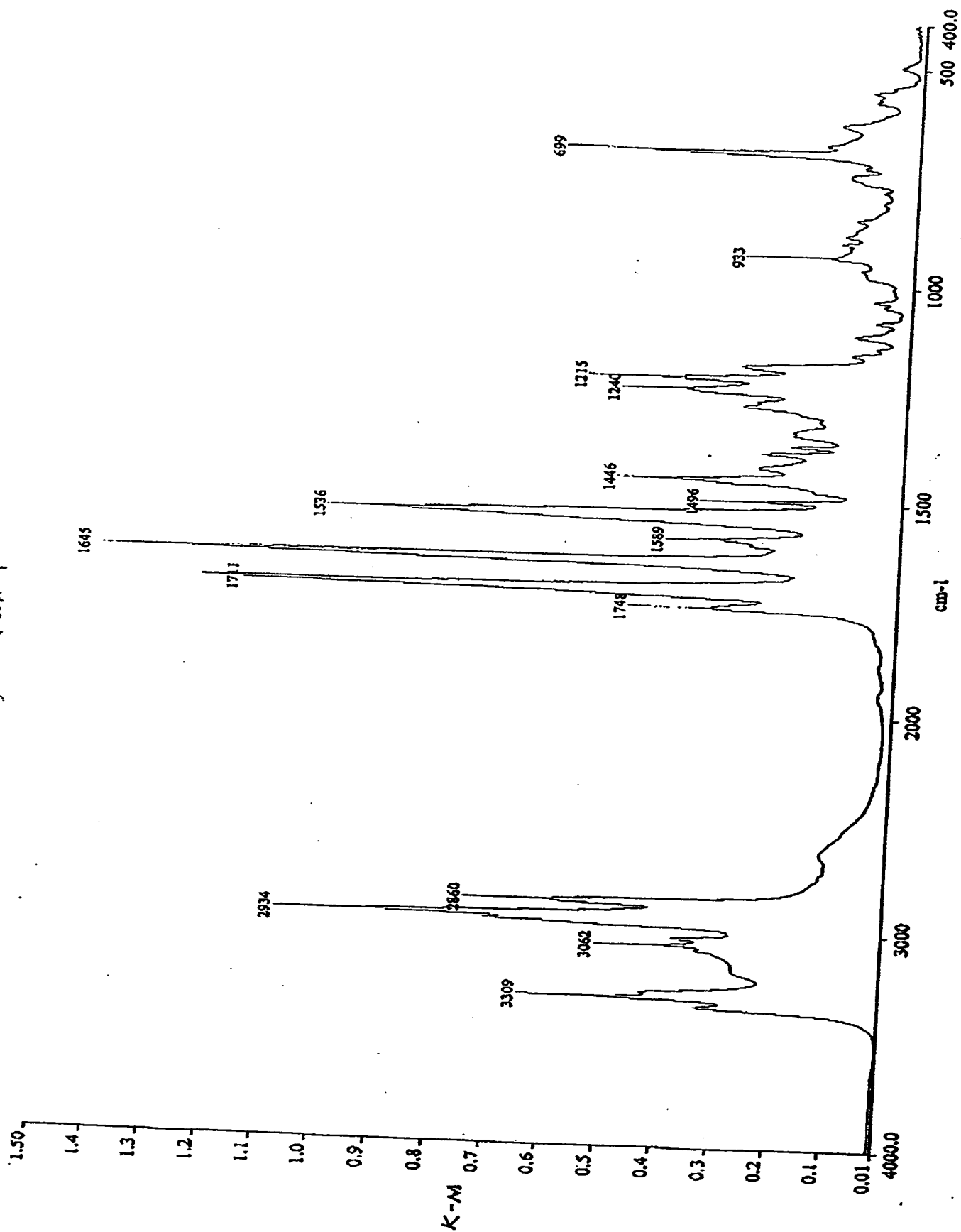
* Transformation may proceed through another form
 ** Thermally stable at lower heating temperatures ($\sim 50^\circ\text{C}$)
 *** Thermally stable forms
 --- Transformation after storage at room temperature
 m Mixture with starting form
 **** When starting material contains seeds.
 Sol Results might vary depending on the solvate of Form Epsilon used.

FIGURE 29
Form 2



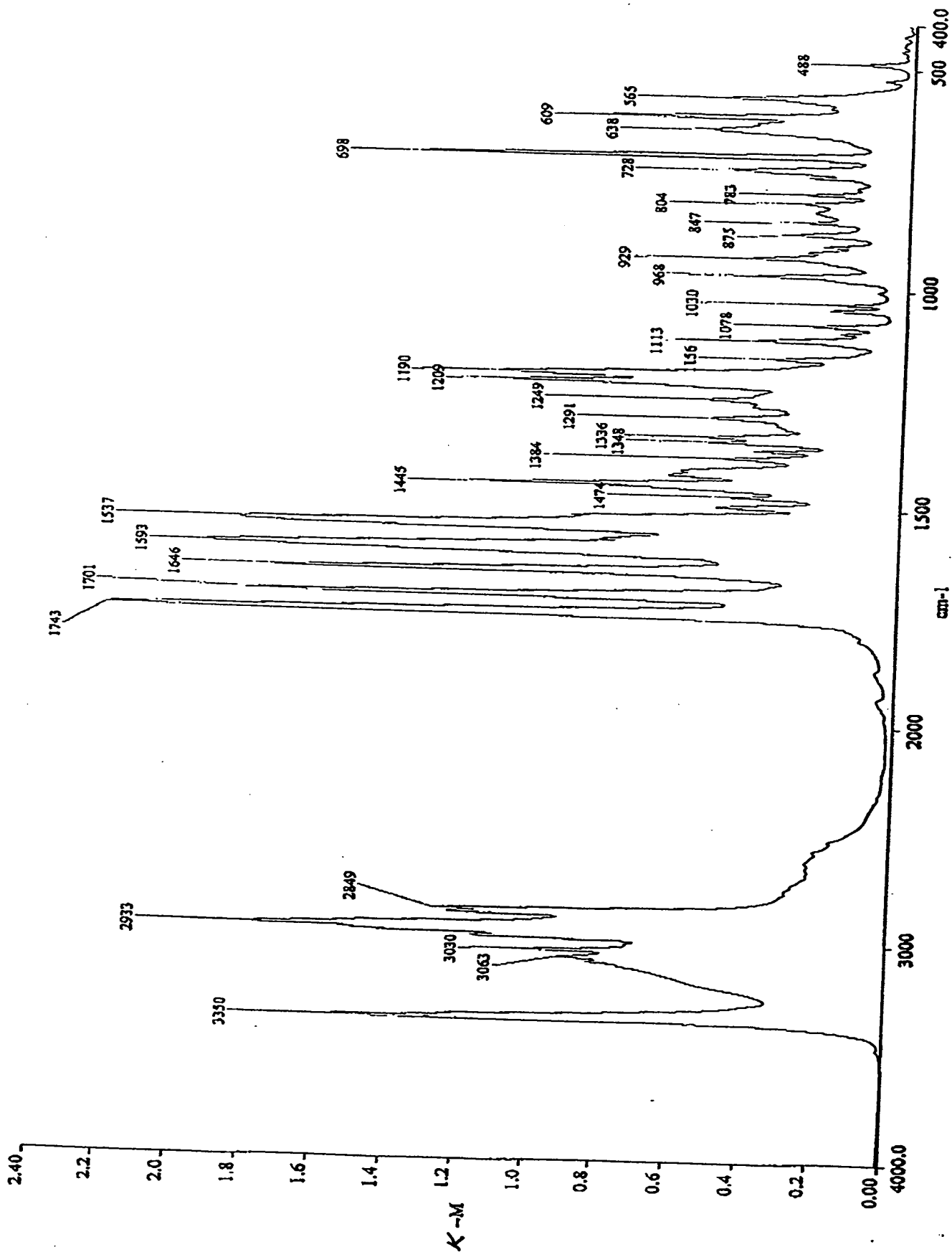
-DRIFT, 4000-400 CM-1, 16 scans, Resolution: 4.00cm-1

FIGURE 30
- Form P



DRIFT, 4000-400 CM⁻¹, 16 scans, Resolution: 4.00cm⁻¹

FIGURE 30
Form U



- DRIFT, 4000-400cm-1, 18 scans, resolution: 4.0cm-1

Figure 32 - Nateglinide Form Z

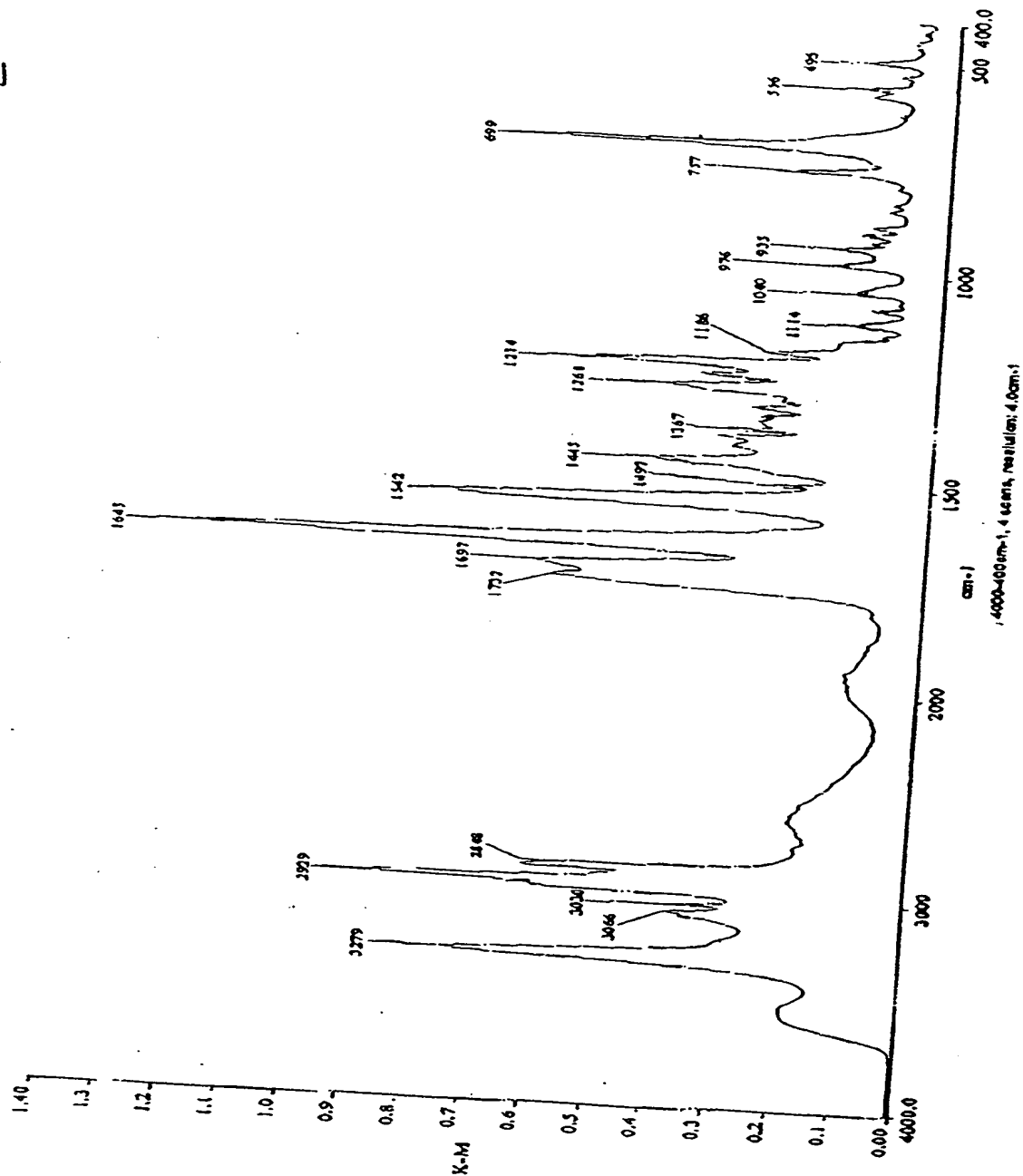
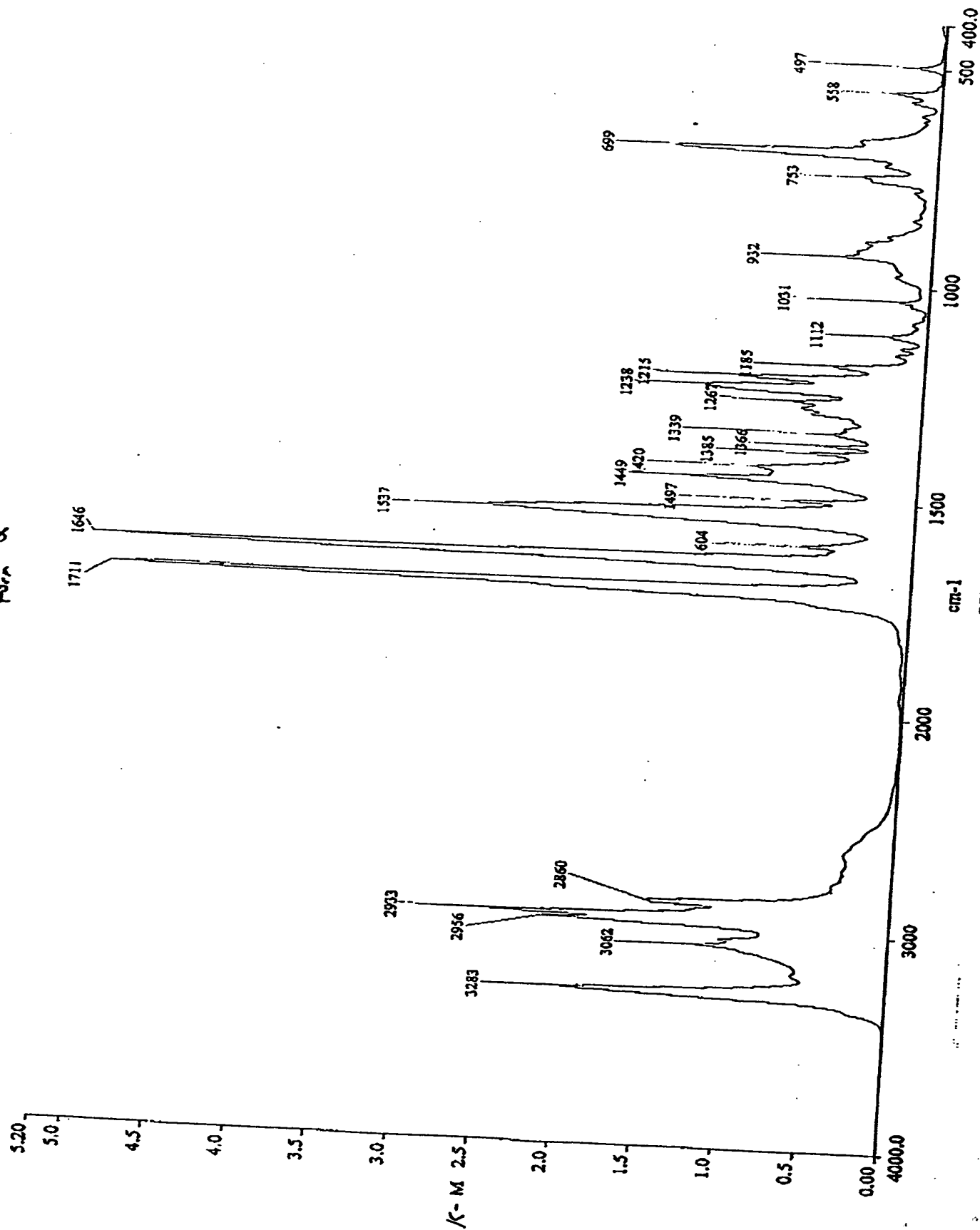
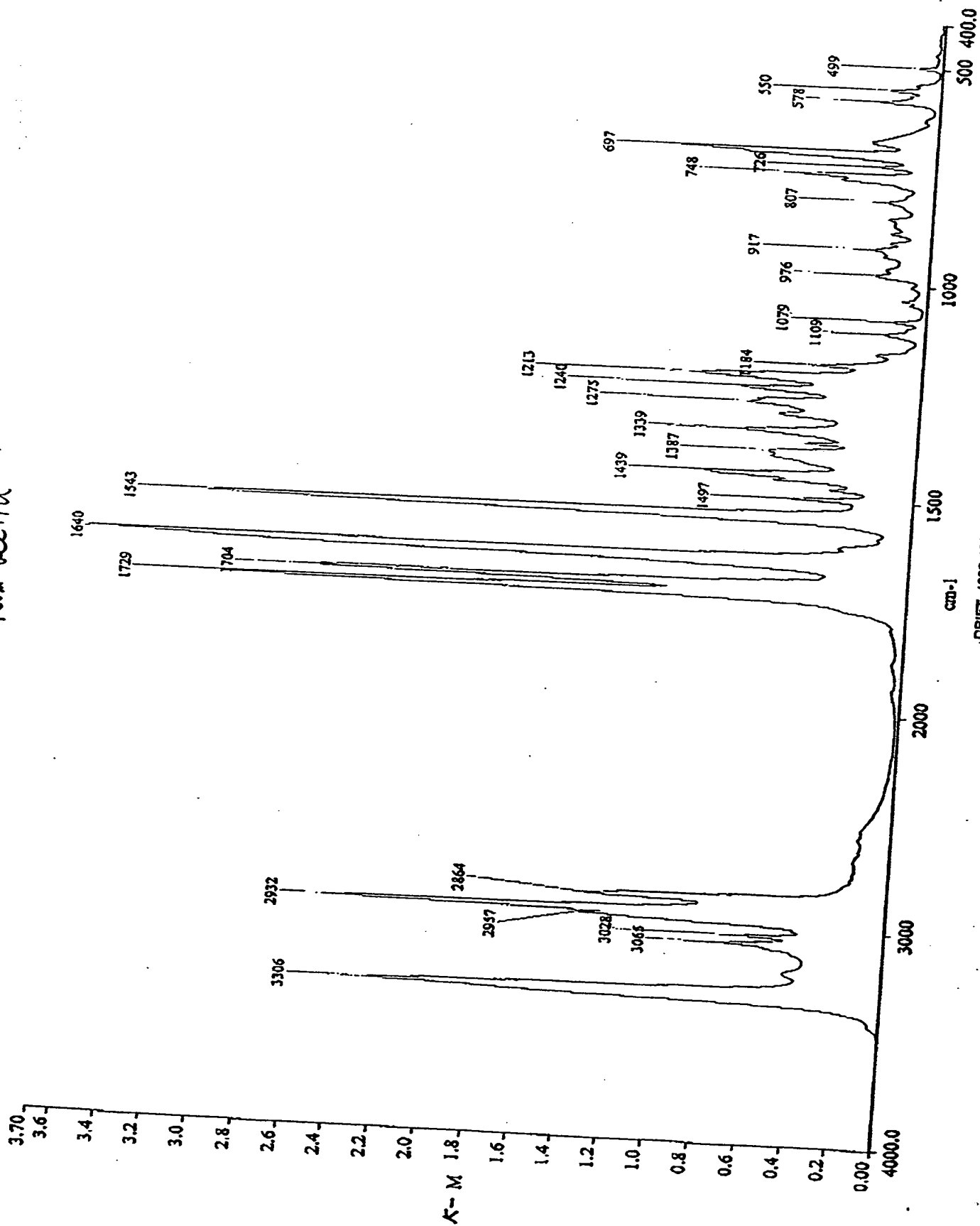


FIGURE 33
Form α



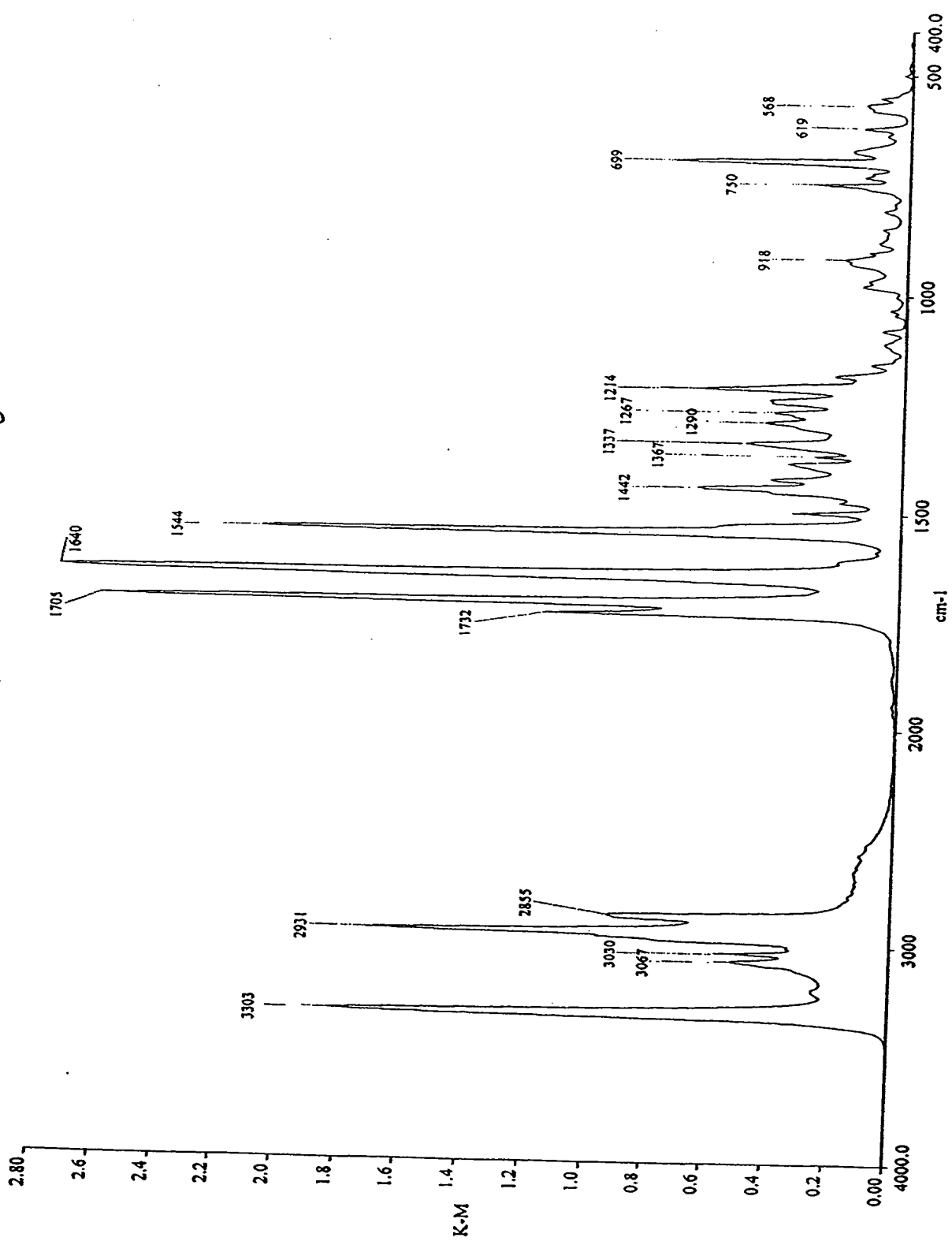
DRIFT, 4000-400 cm⁻¹, 16 scans, Resolution 4.00 cm⁻¹

Figure 34 Form delta



DRIFT, 4000-400cm-1, 16 scans, resolution: 4.0cm-1

FIGURE 35 - form



DRIFT, 4000-400CM-1, 16 SCANS RESOLUTION: 4.0CM-1

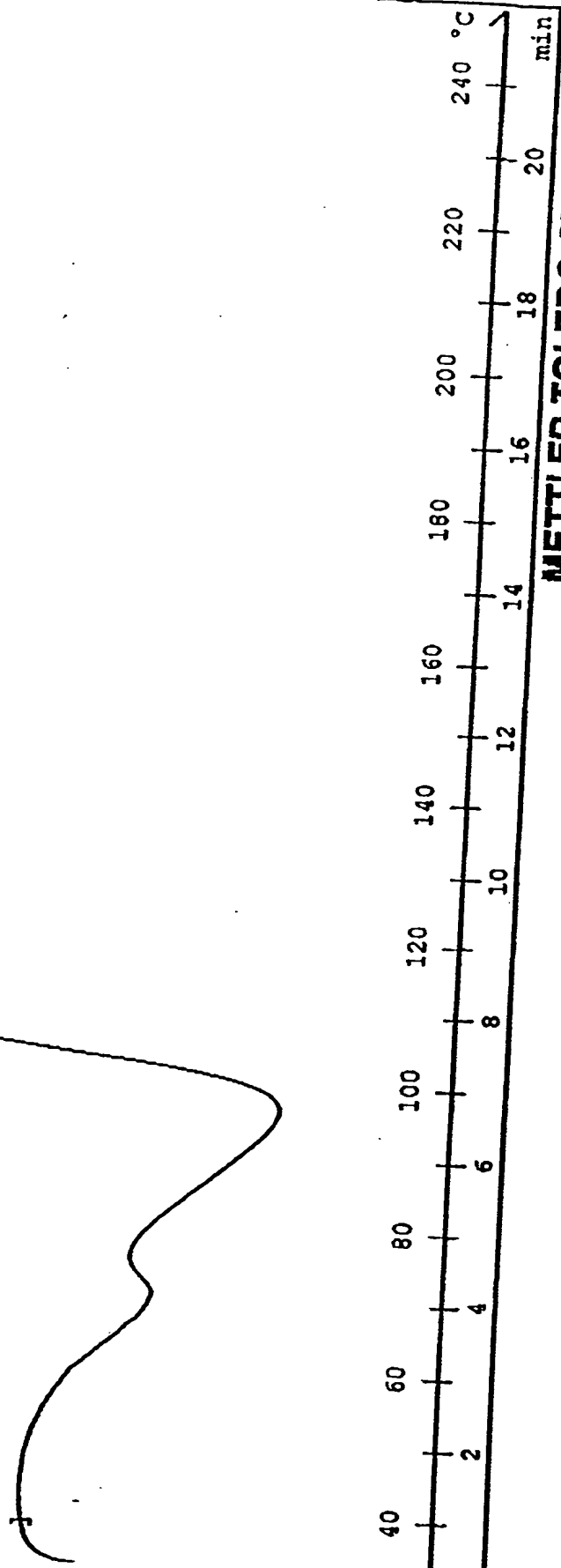
form (O)

FIGURE 36

Form A

Method: 30-250°C, 10°C/min, 40 ml/min N₂
30.0-250.0°C 10.00°C/min

N₂, 40.0 ml/min

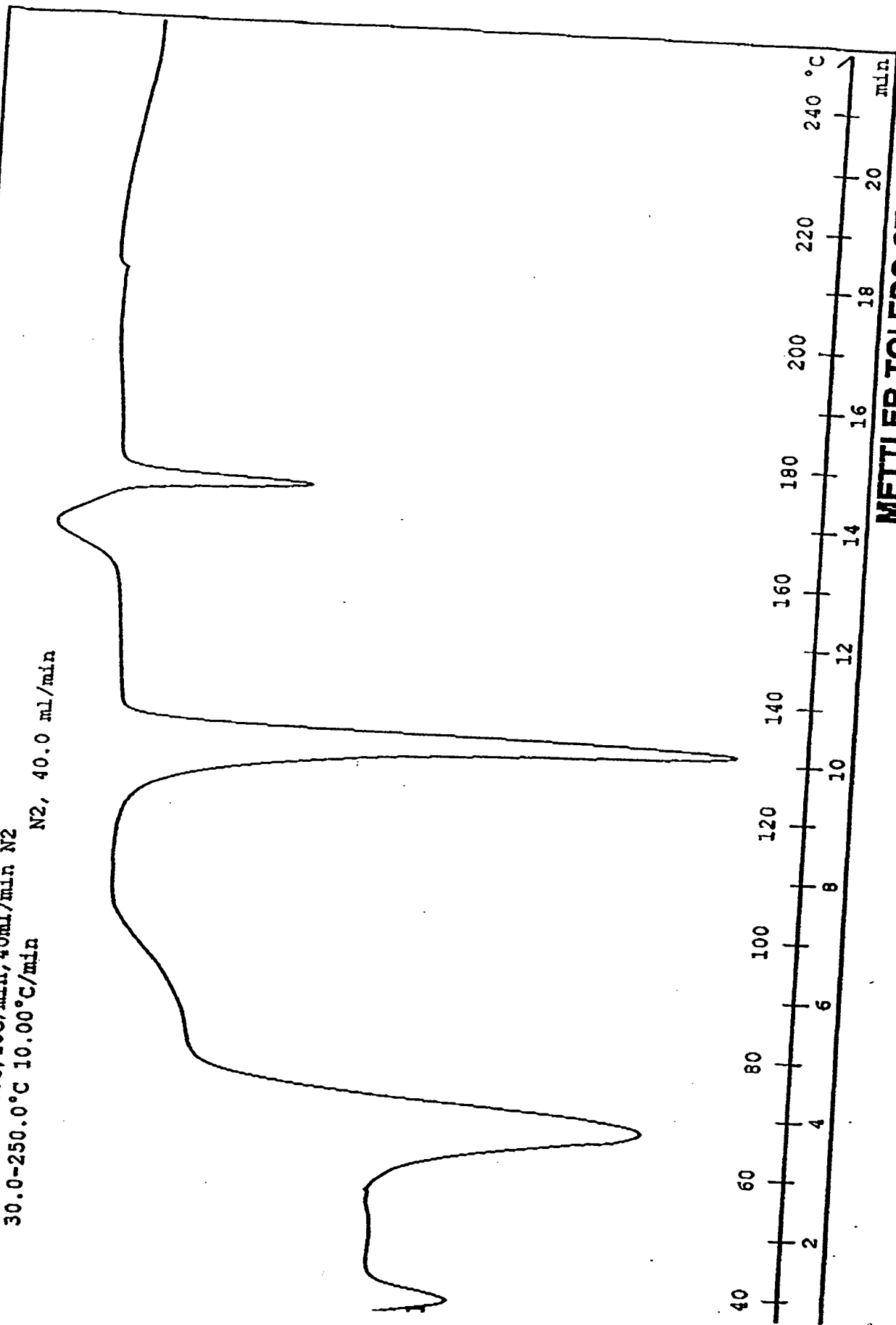


METTLER TOLEDO STAR® System

FIGURE 37

Form D

Method: 30-250°C, 10°C/min, 40 ml/min N₂
30.0-250.0°C 10.00°C/min
N₂, 40.0 ml/min

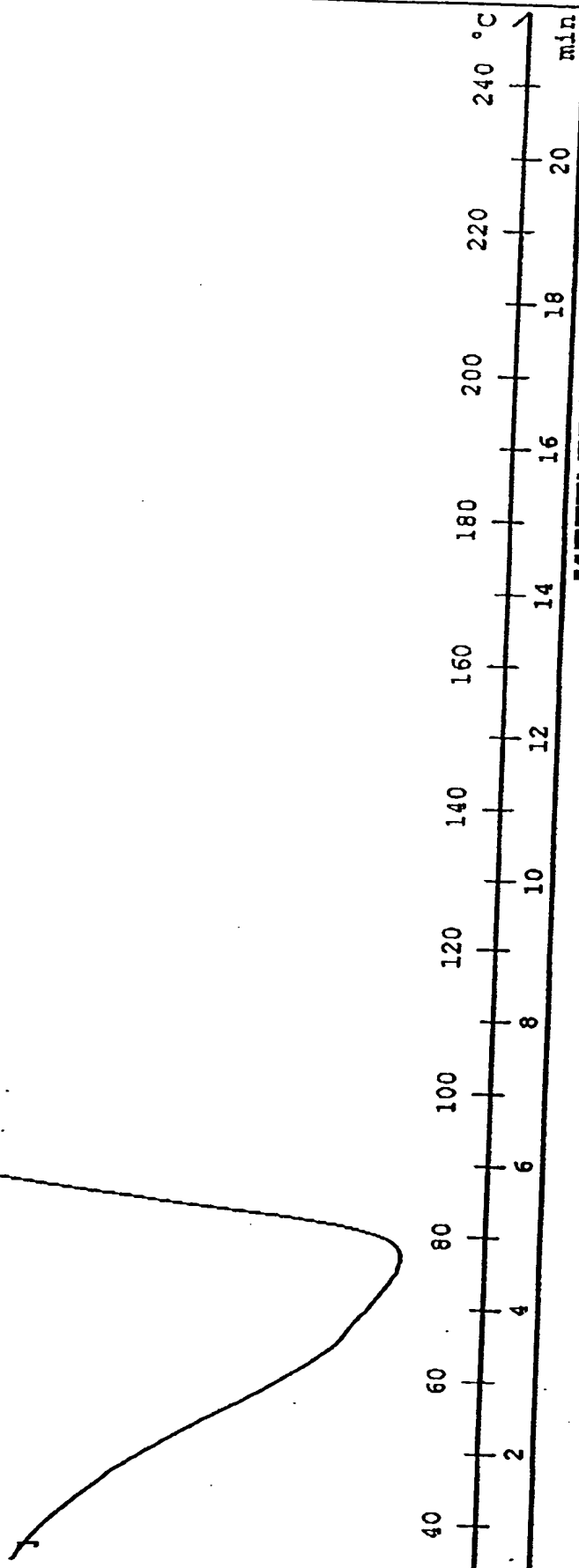


METTLE TOLEDO STAR® System

FIGURE 38

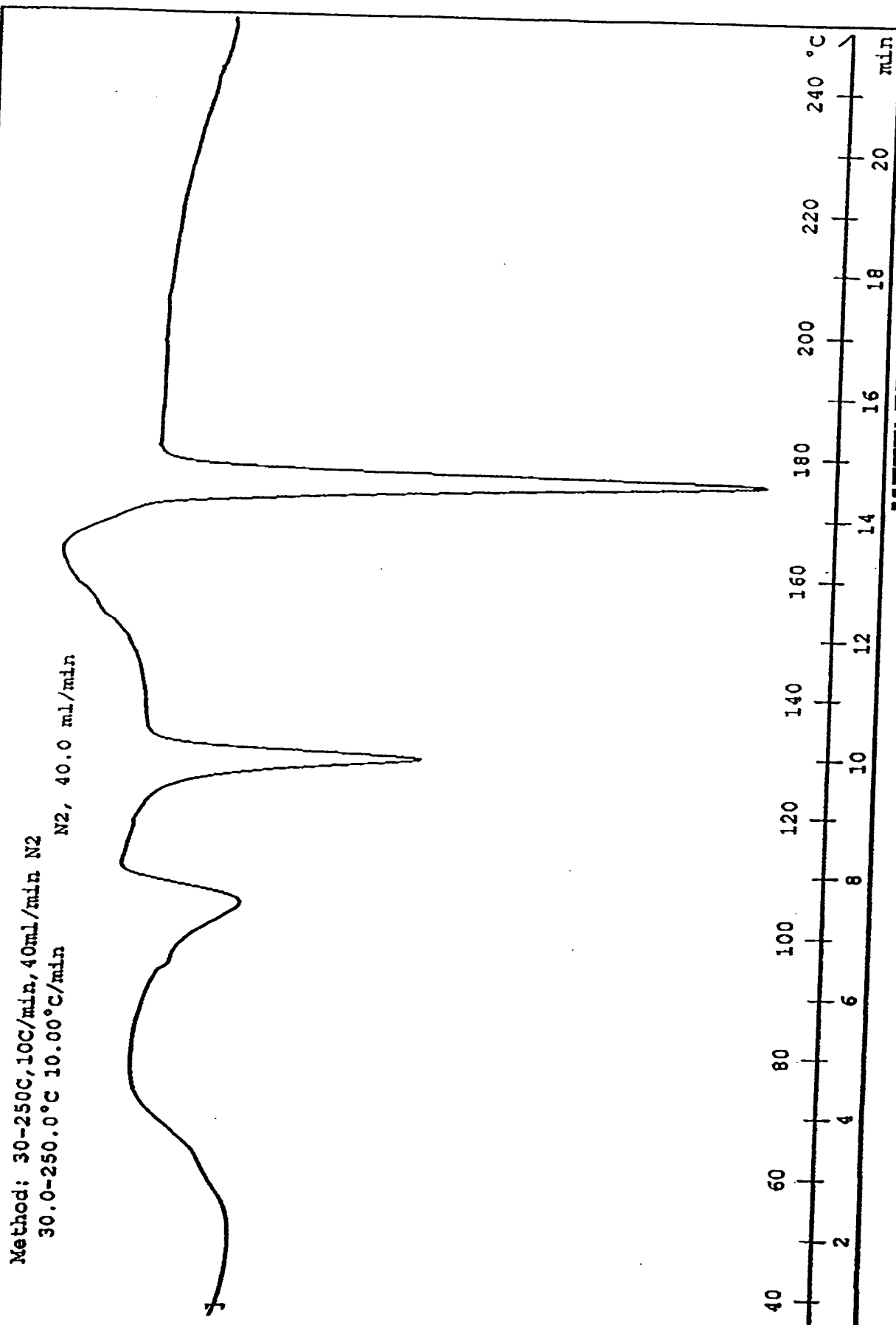
Form E

Method: 30-250°C, 10°C/min, 40 ml/min N₂
30.0-250.0°C 10.00°C/min N₂, 40.0 ml/min



METTTLER TOLEDO STAR® System

FIGURE 20

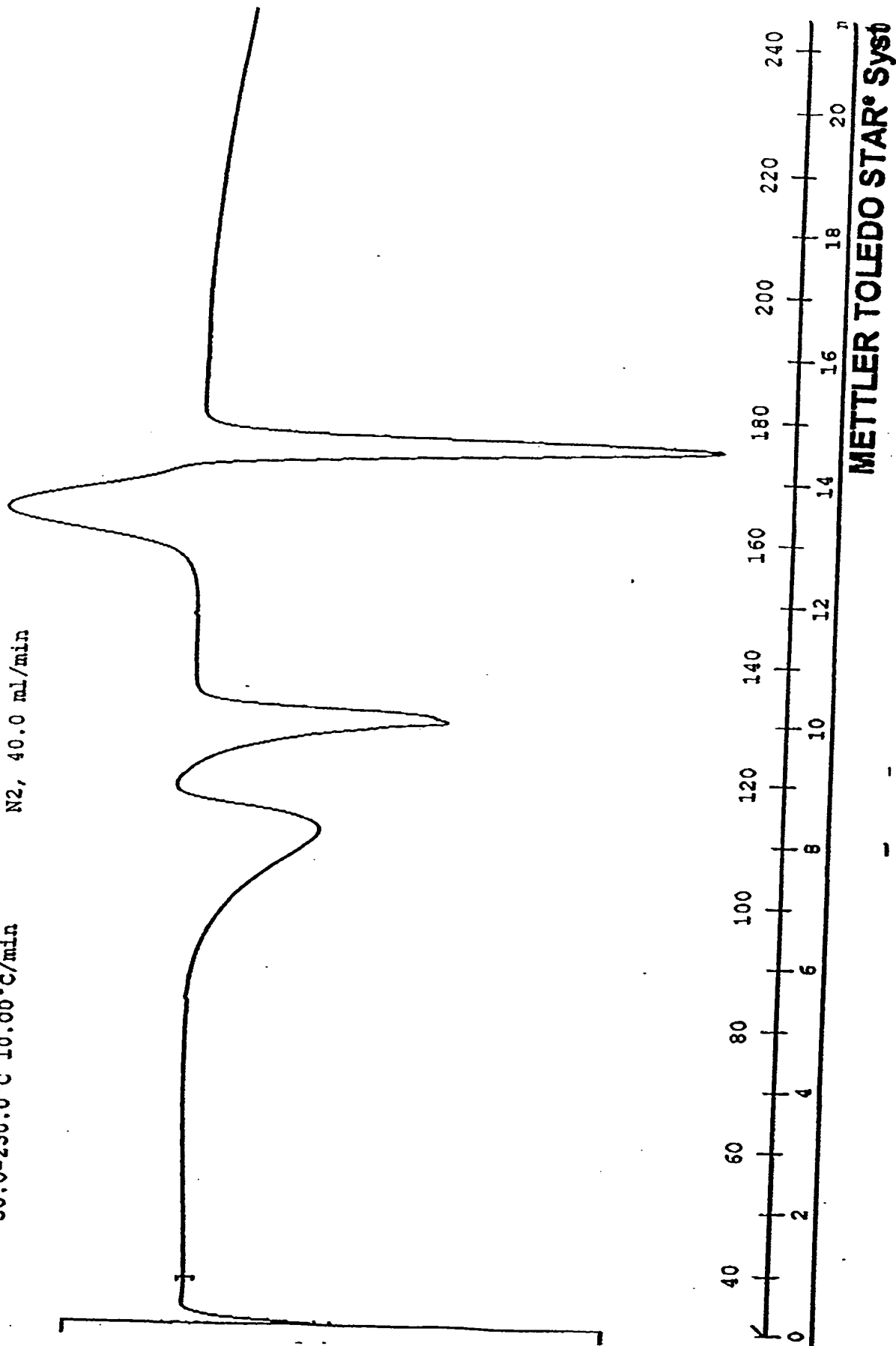


METTLER TOLEDO STAR® System

40
FIGURE 08

IXO

Method: 30-250C, 10C/min, 40ml/min N2
30.0-250.0°C 10.00°C/min
N2, 40.0 ml/min



METTLER TOLEDO STAR® Syst

FIGURE 2041

Form I

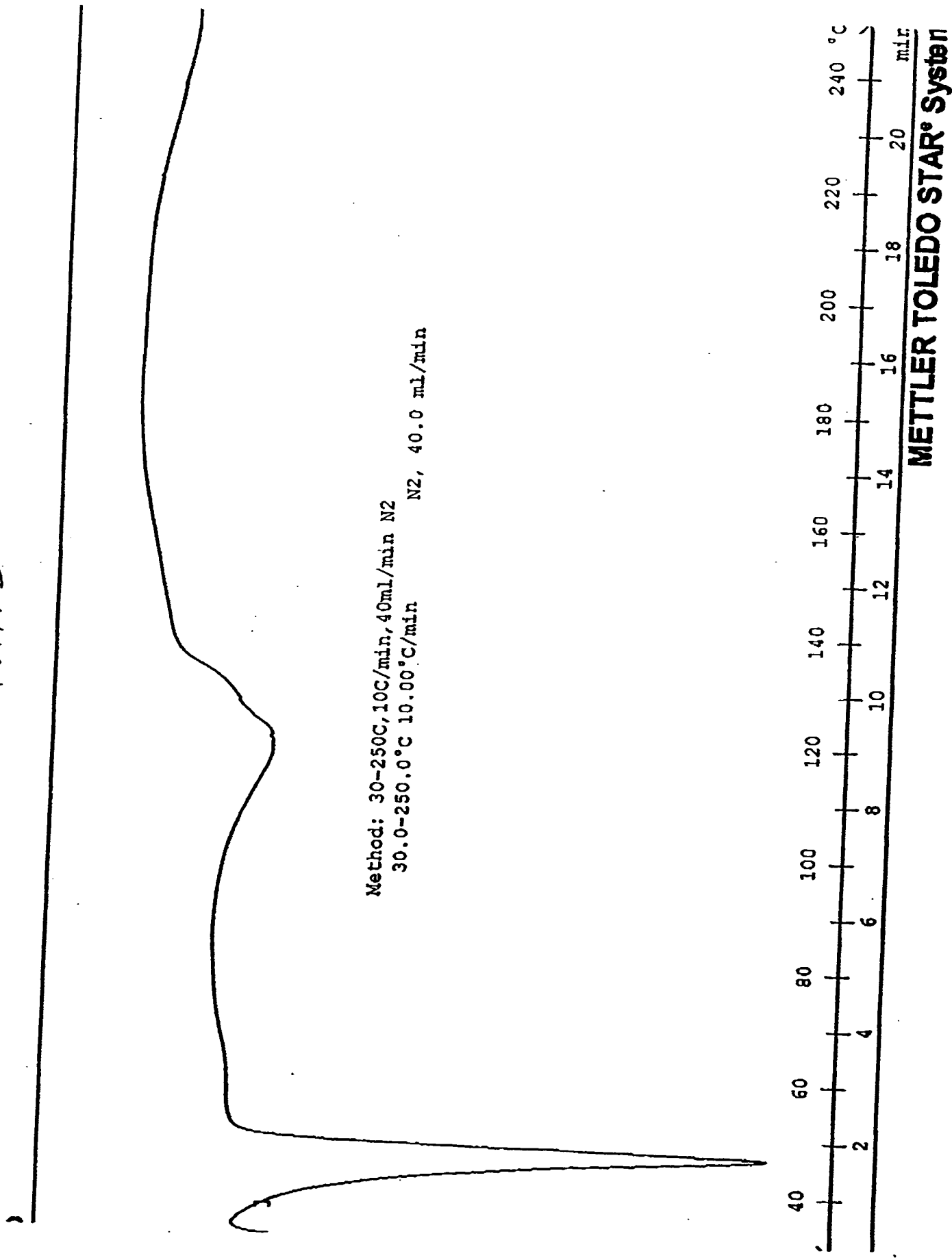


FIGURE 4d

Form J

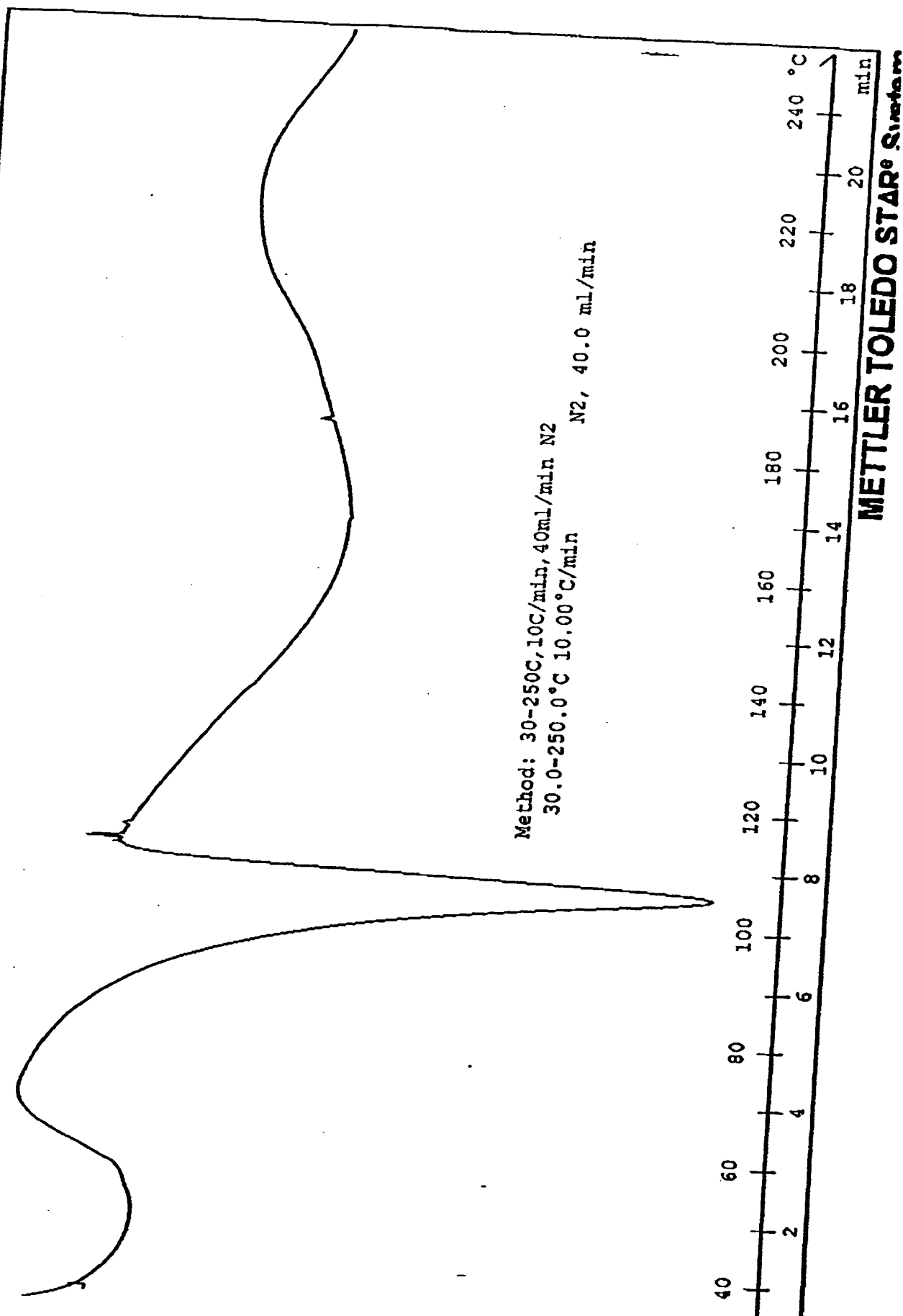
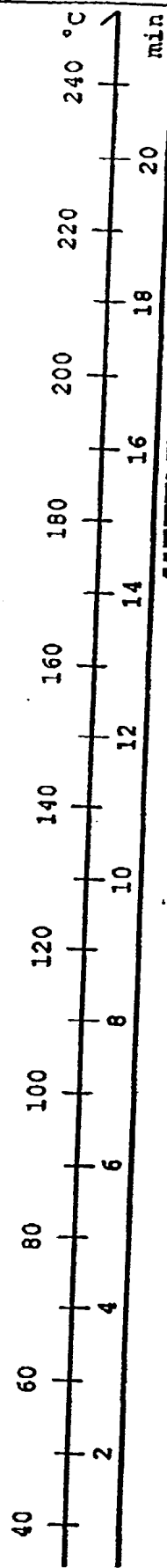


FIGURE 43
Form K

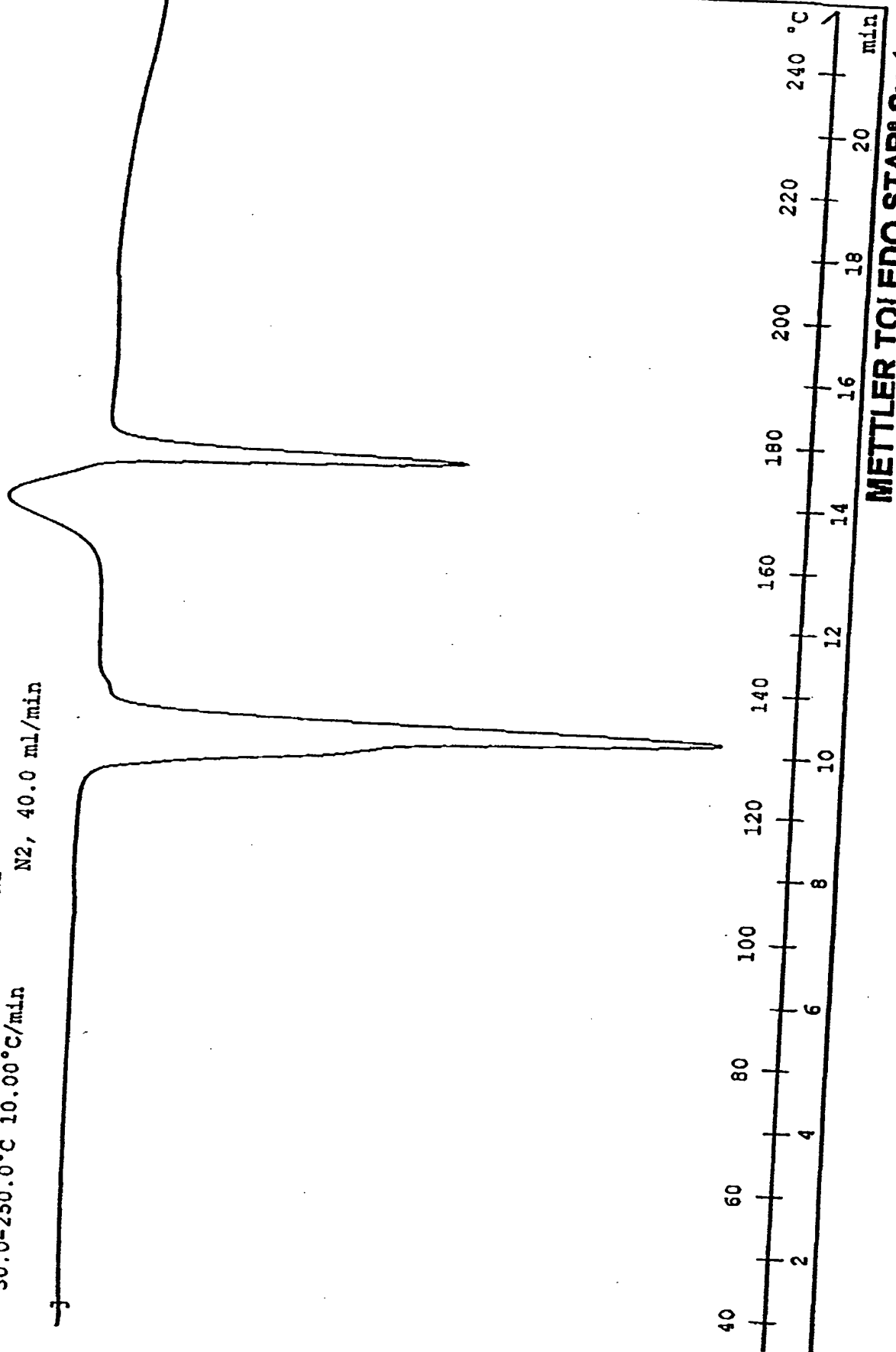
Method: 30-250°C, 10°C/min, 40ml/min N₂
30.0-250.0°C 10.00°C/min
N₂, 40.0 ml/min



METTLER TOLEDO STAR® System

FIGURE 42 4/4
Form L

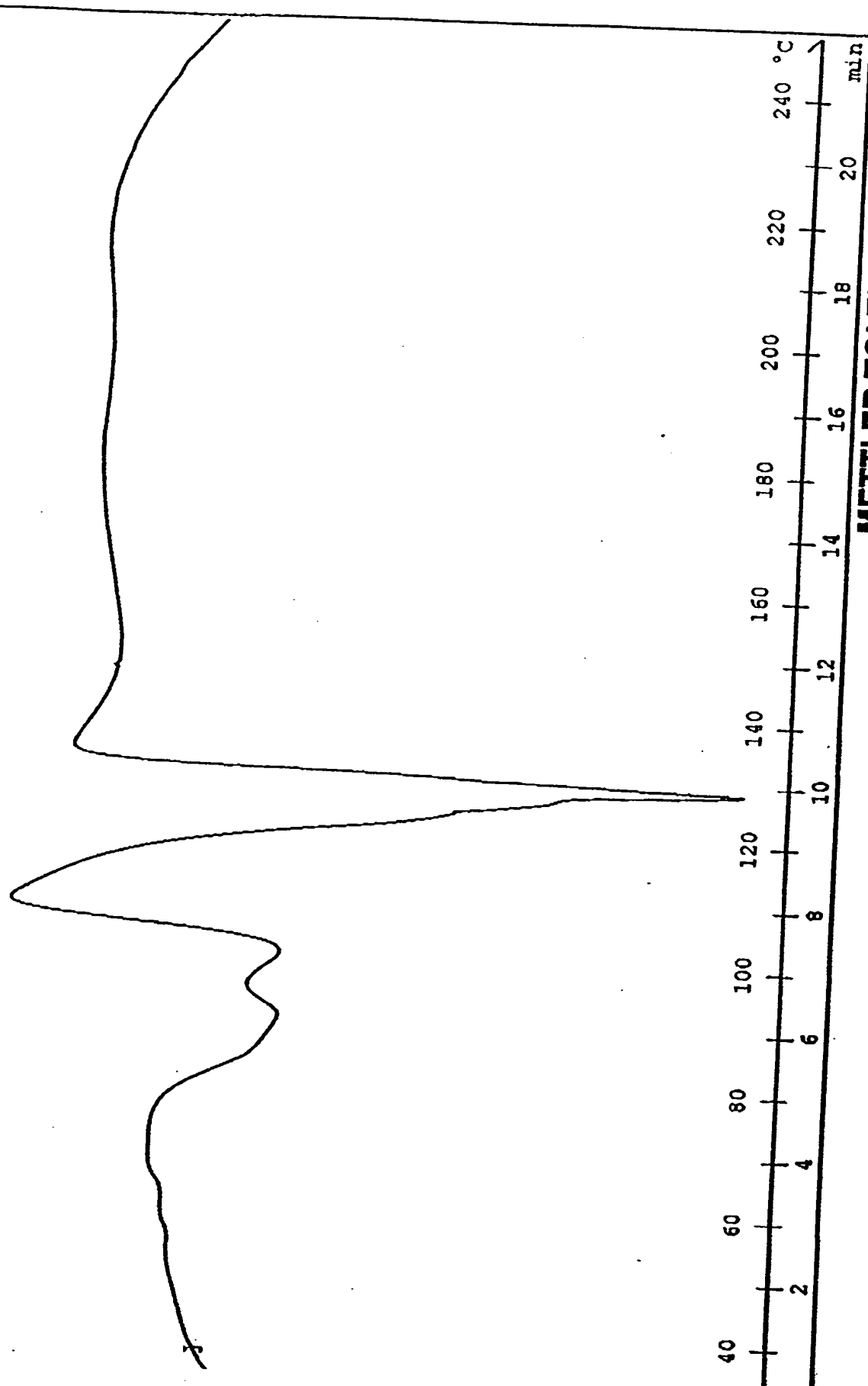
Method: 30-250°C, 10°C/min, 40 ml/min N2
30.0-250.0°C 10.00°C/min N2, 40.0 ml/min



METTLER TOLEDO STABO 6.11.11

FIGURE 45
Form M

Method: 30-250°C, 10°C/min, 40 ml/min N₂
30.0-250.0°C 10.00°C/min

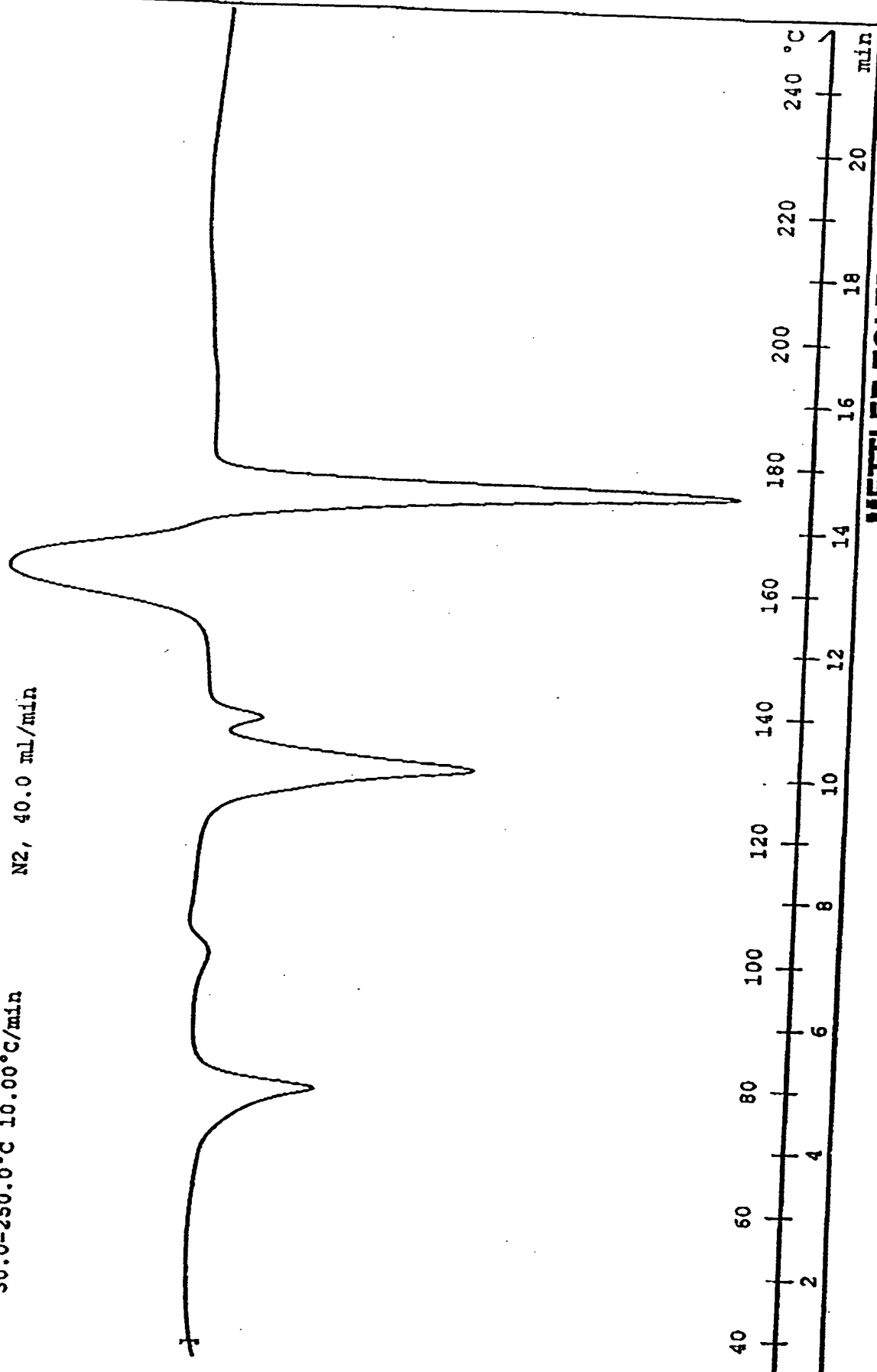


METTLER TOLEDO STAR® System

FIGURE 44 46

Form N

Method: 30-250°C, 10°C/min, 40ml/min N2
30.0-250.0°C 10.00°C/min N2, 40.0 ml/min

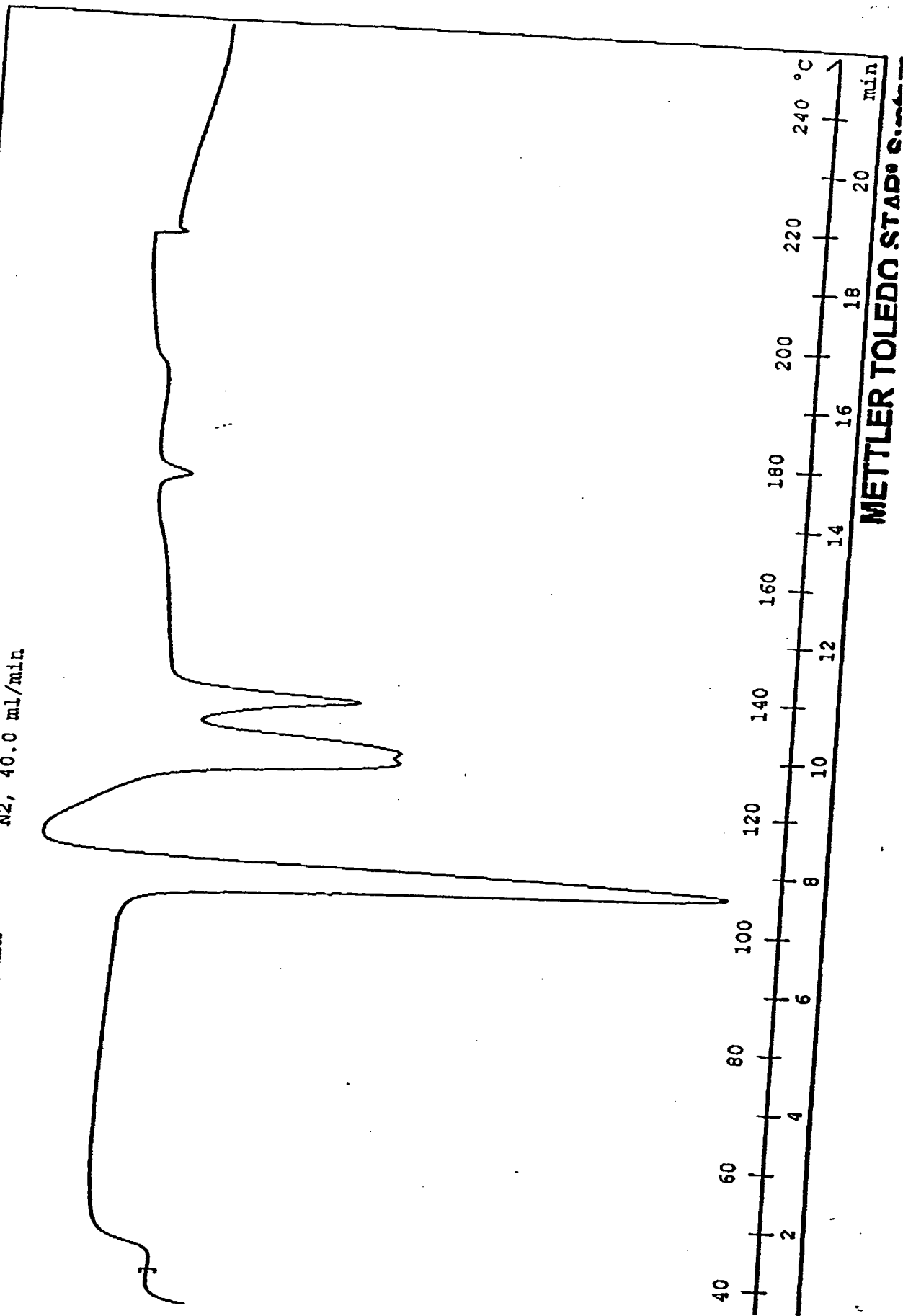


METTLER TOLEDO STAR® System

FIGURE #5 47
Form G

Method: 30-250°C, 10°C/min, 40ml/min N2
30.0-250.0°C 10.00°C/min

N2, 40.0 ml/min

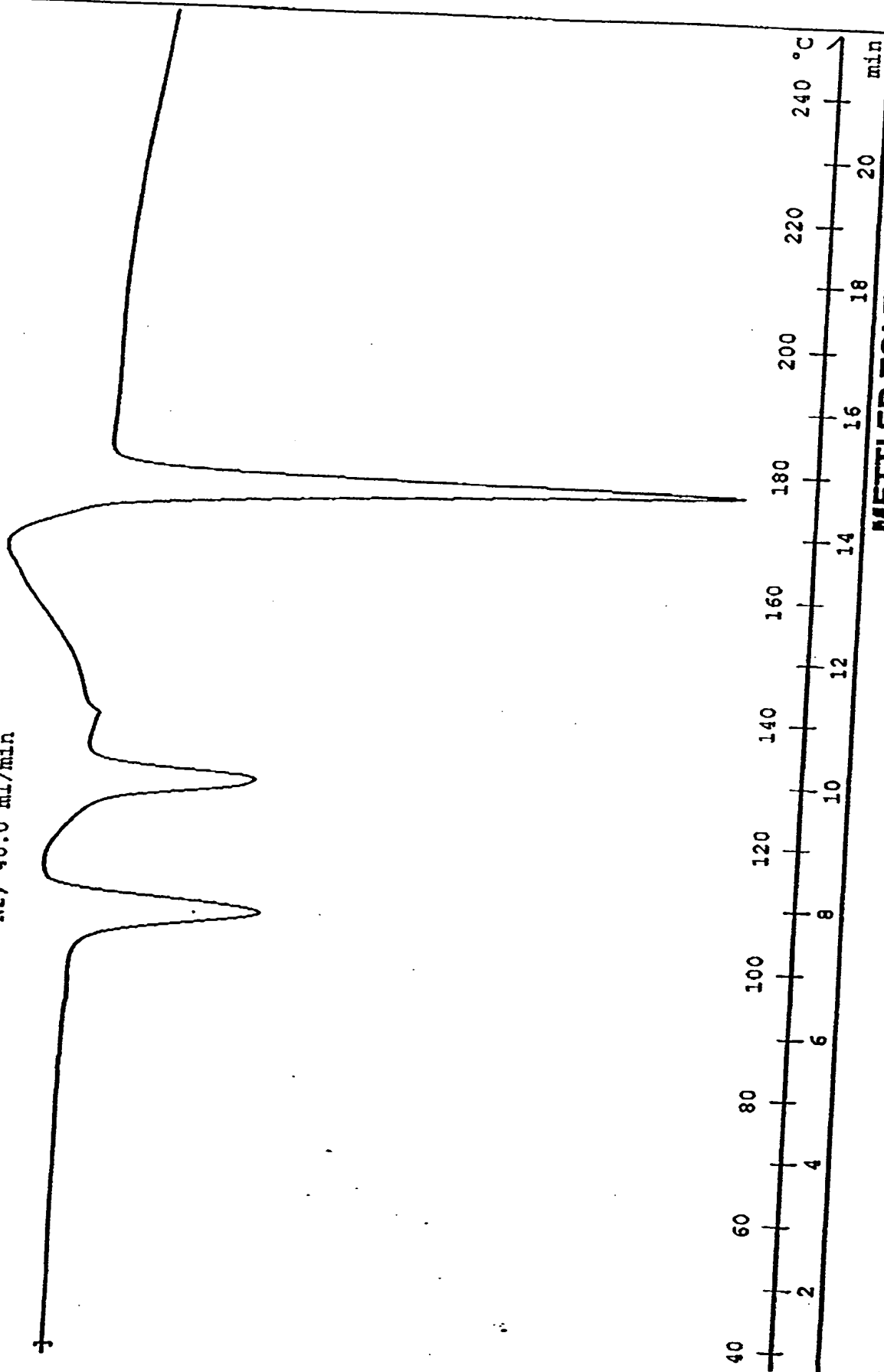


METTTLER TOLEDO STAD® G

Figure 48
Form P

Method: 30-250C, 10C/min, 40ml/min N2
30.0-250.0°C 10.00°C/min

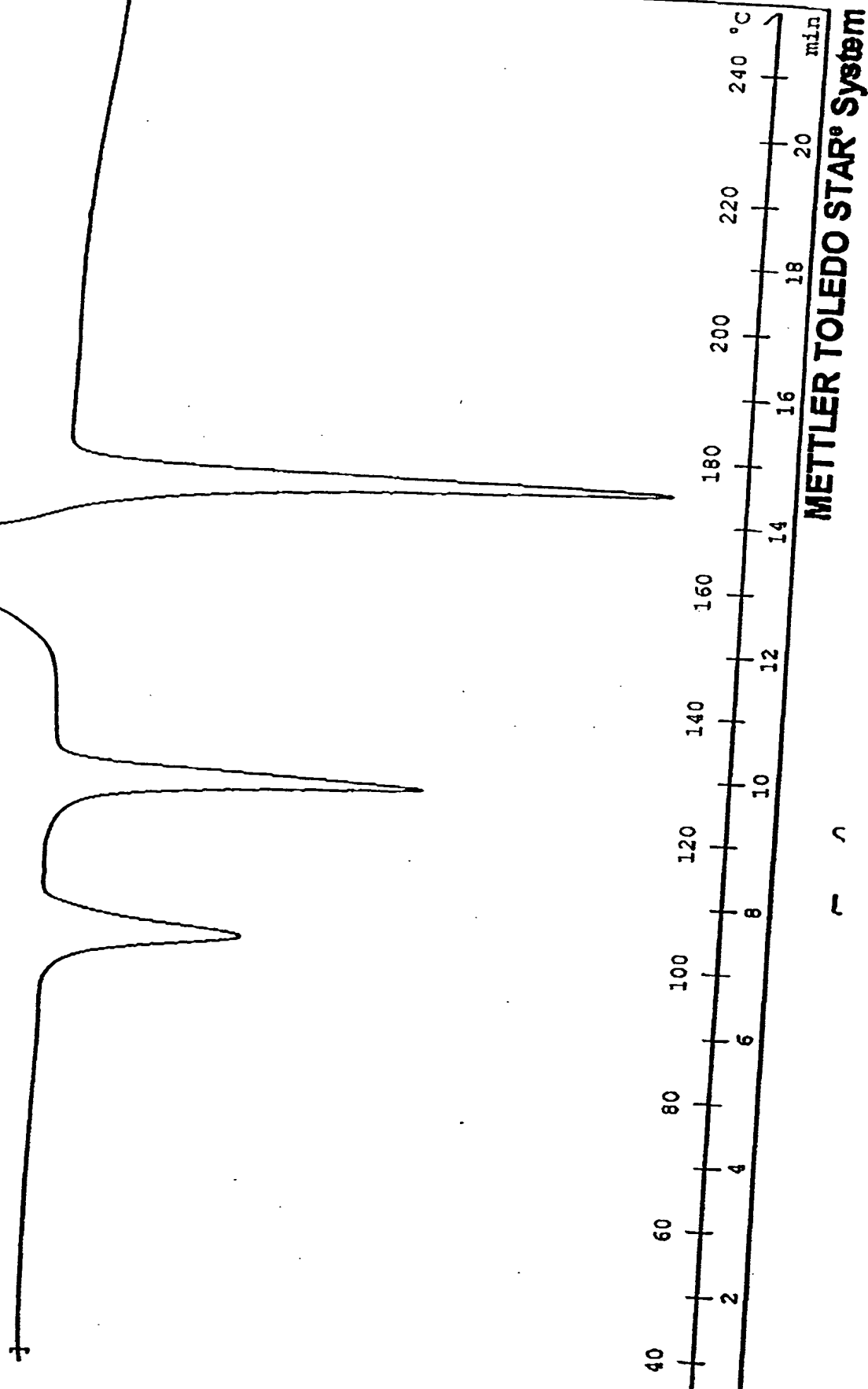
N2, 40.0 ml/min



METTLER TOLEDO STAR® System

FIGURE 47 49
Form Q

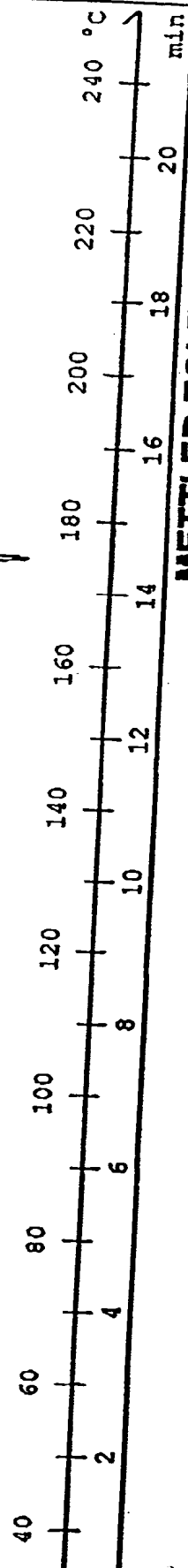
Method: 30-250°C, 10°C/min, 40 mL/min N₂
30.0-250.0°C 10.00°C/min N₂, 40.0 mL/min



METTLER TOLEDO STAR® System

FIGURE 48-50
Form T

Method: 30-250°C, 10°C/min, 40 ml/min N₂
30.0-250.0°C 10.00°C/min N₂, 40.0 ml/min

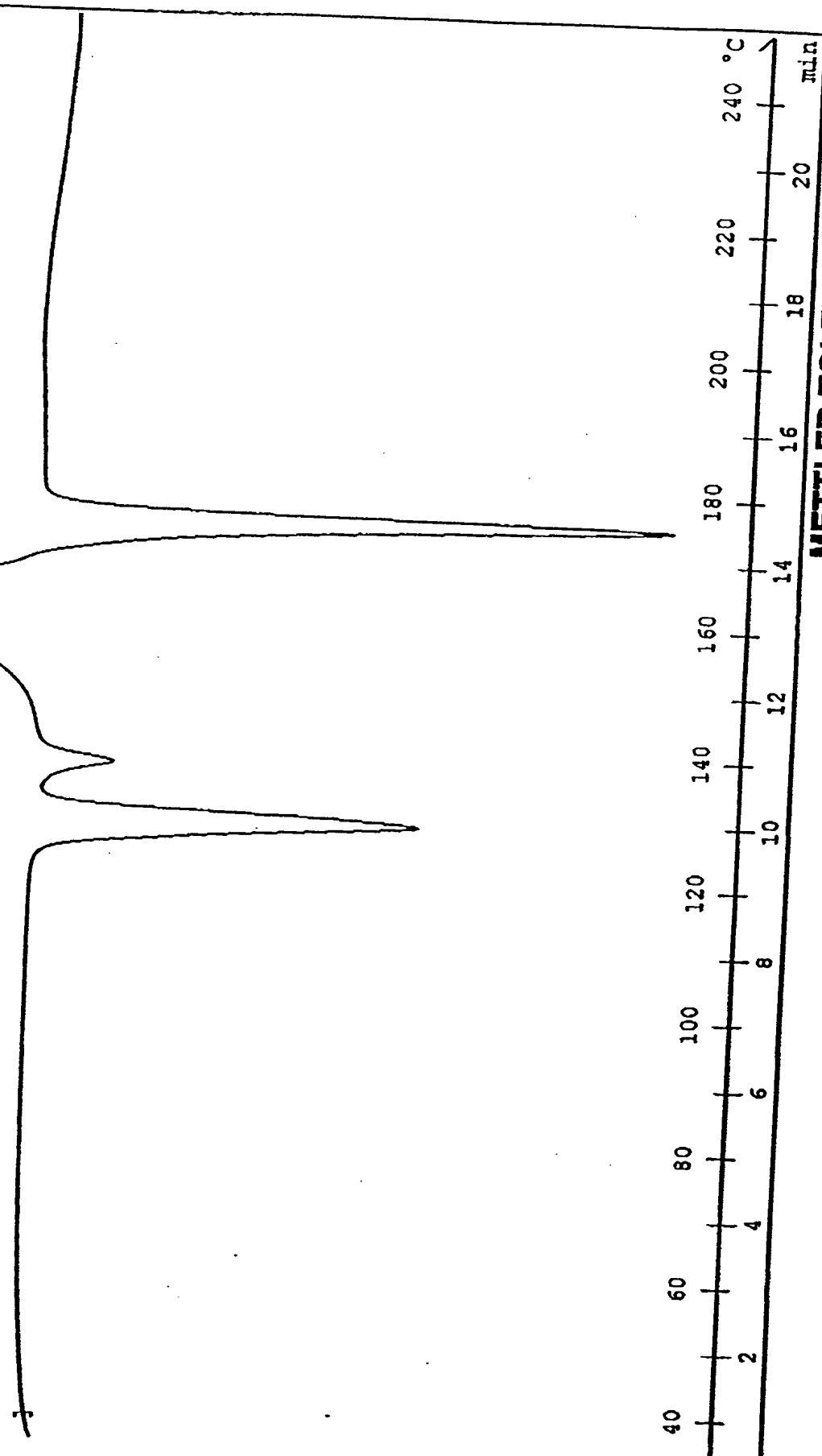


METTLER TOLEDO STAR® System

FIGURE 49-51

Form U

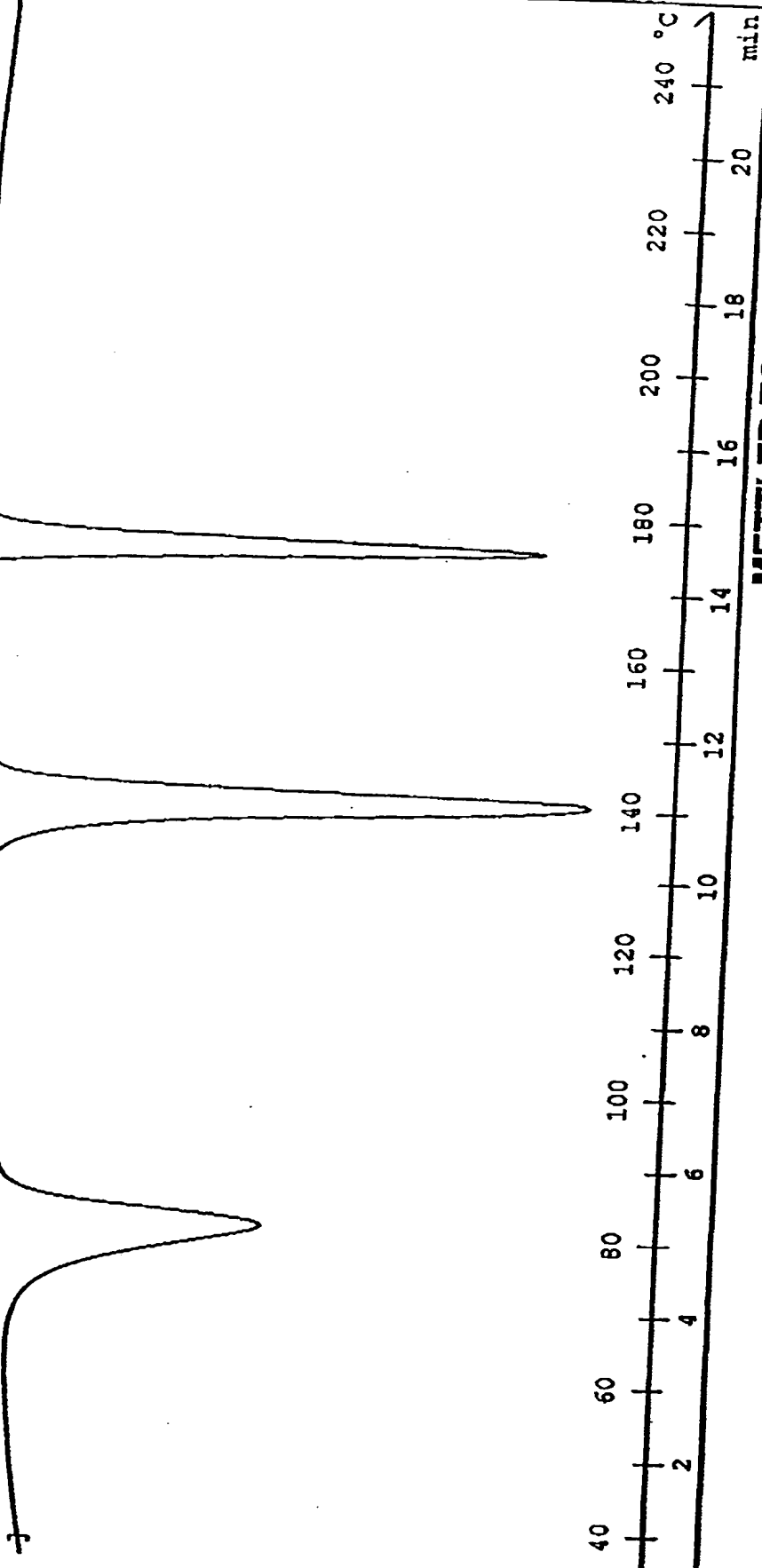
Method: 30-250°C, 10°C/min, 40 ml/min N₂
30.0-250.0°C 10.00°C/min N₂, 40.0 ml/min



METTTLER TOLEDO STAR® System

FIGURE 5052
Form V

Method: 30-250°C, 10°C/min, 40ml/min N2
30.0-250.0°C 10.00°C/min N2, 40.0 ml/min



METTLER TOLEDO STAR® System

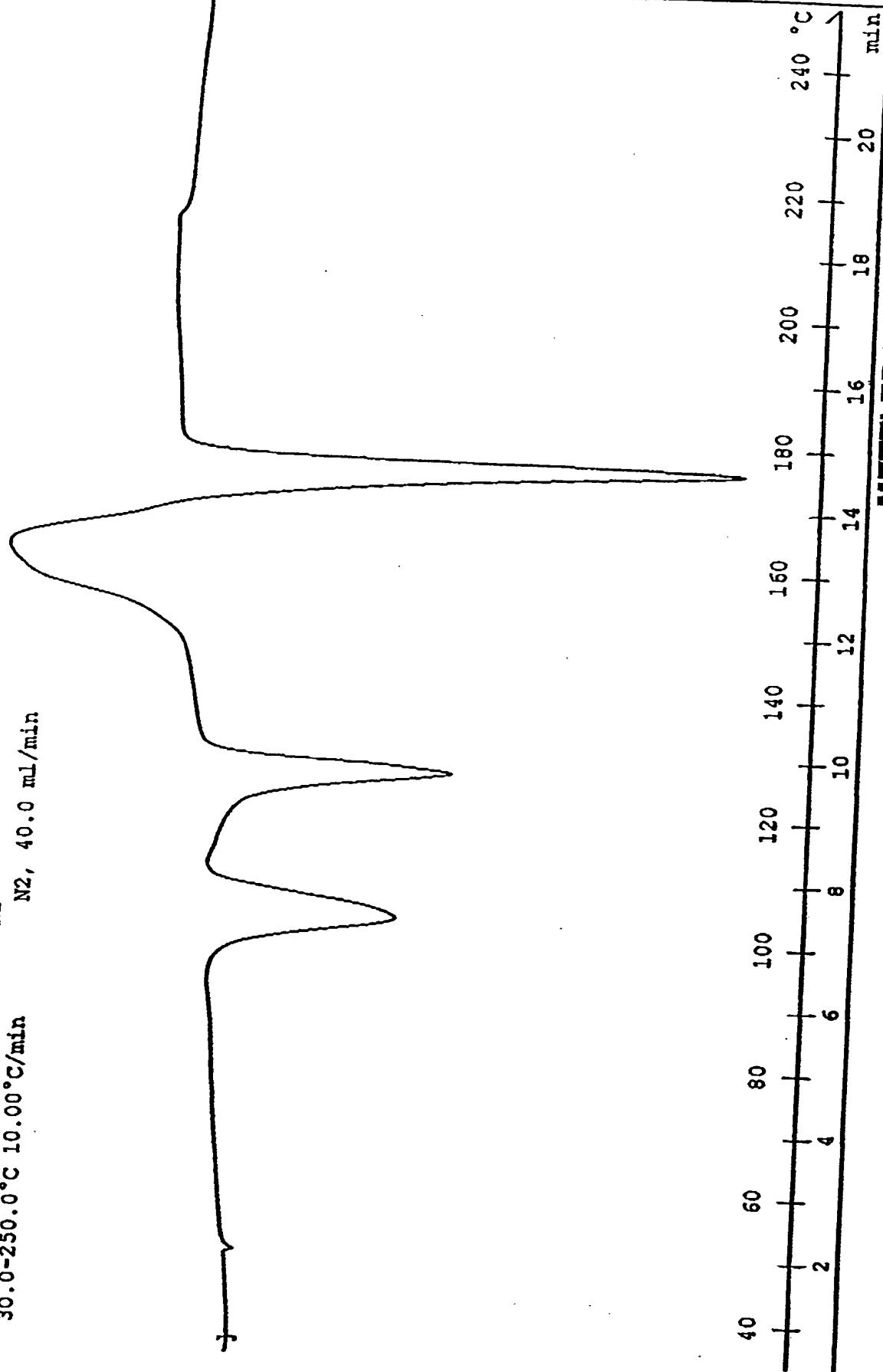
FIGURE 52-53

Form Y (chloroform solvate)

Method: 30-250°C, 10°C/min, 40 ml/min N₂

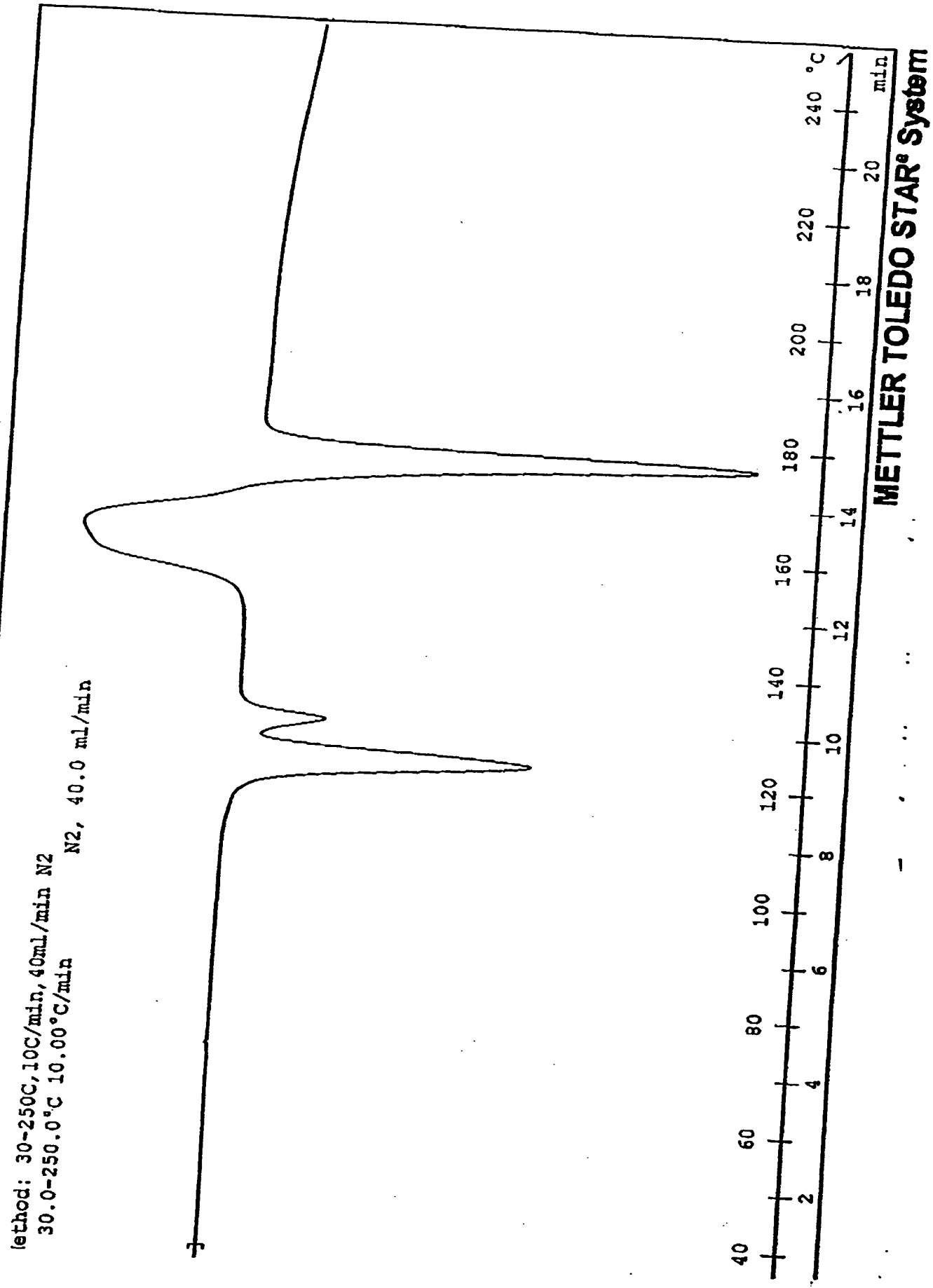
30.0-250.0°C 10.00°C/min

N₂, 40.0 ml/min



METTLER TOLEDO STAR® System

FIGURE 54
Y (dichloromethane solvent)



55
Figure ~~27~~ - Nataglinde Form Z

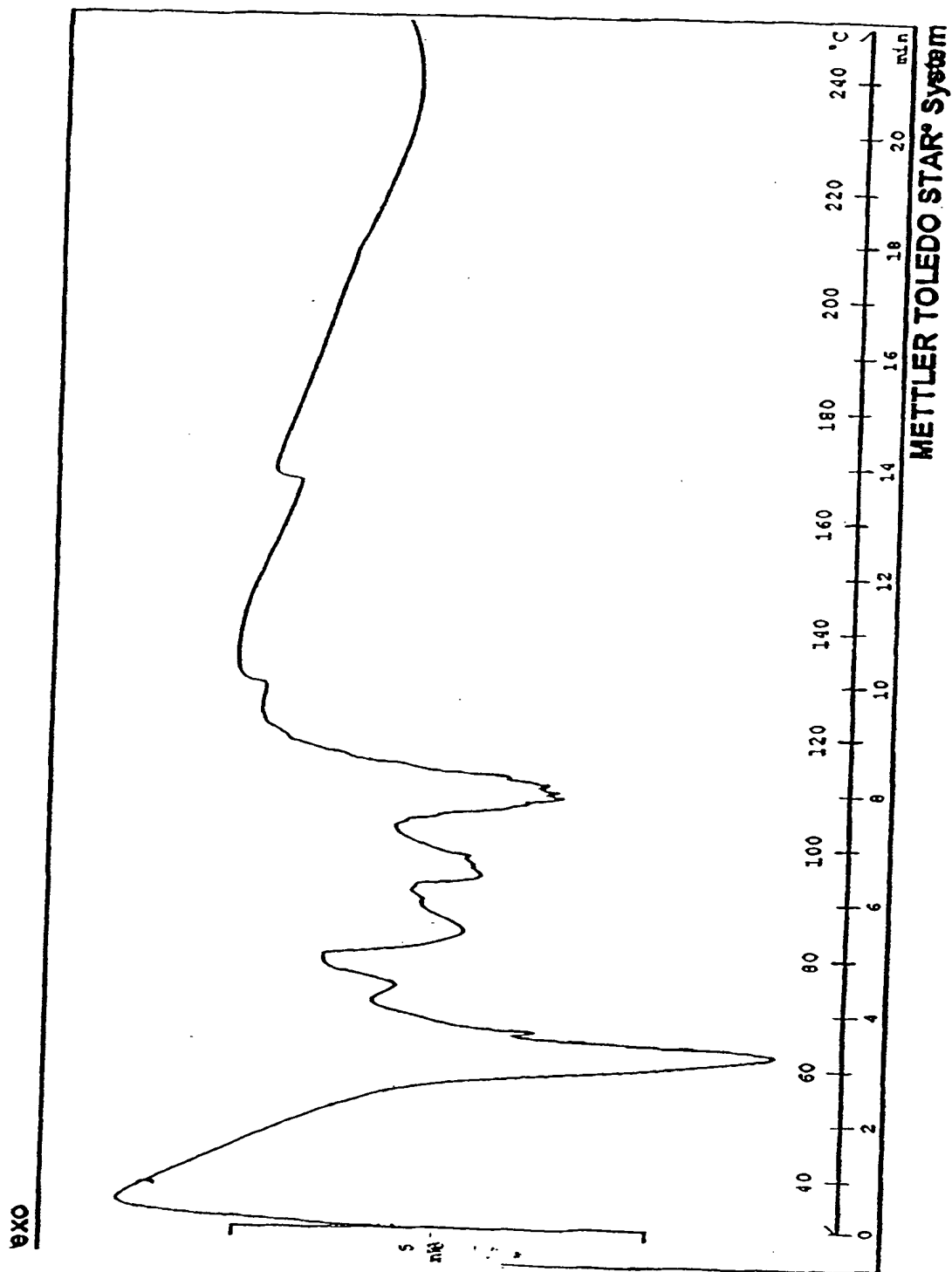
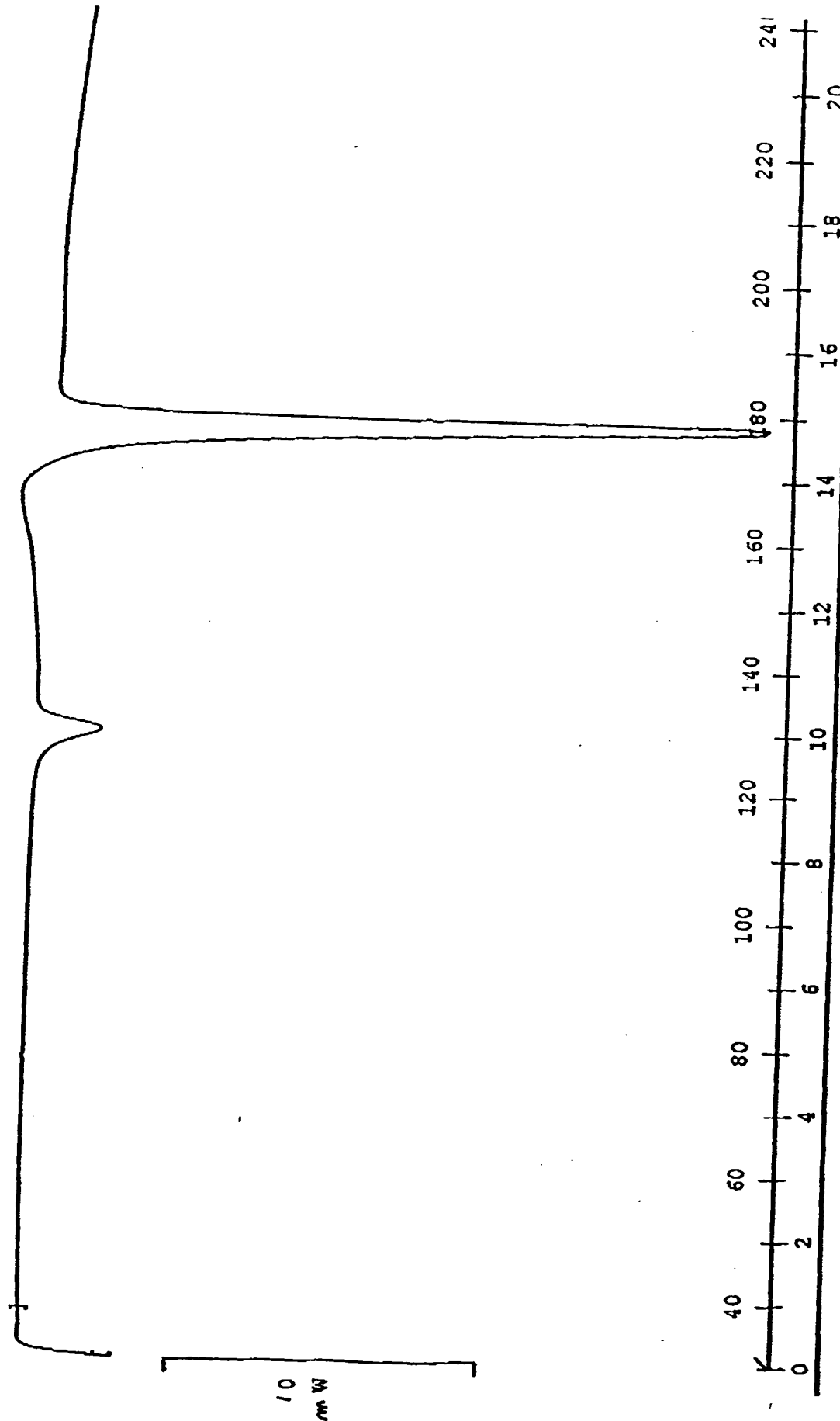


FIGURE 51-56
Form α

1X0

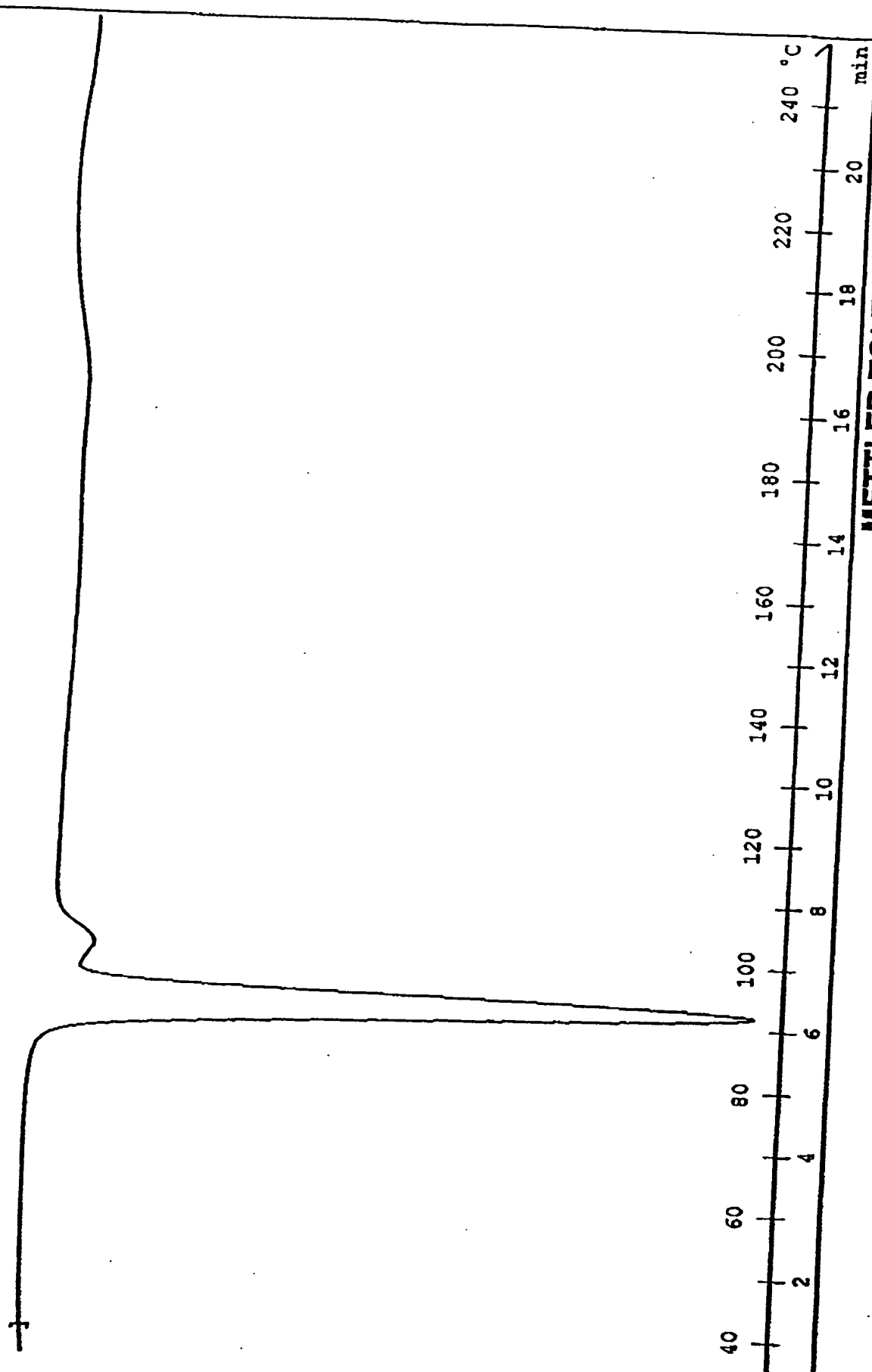
Method: 30-250°C, 10°C/min, 40ml/min N₂
30.0-250.0°C 10.00°C/min N₂, 40.0 ml/min



METTLER TOLEDO STAR® 5M

FIGURE 57
Form Beta

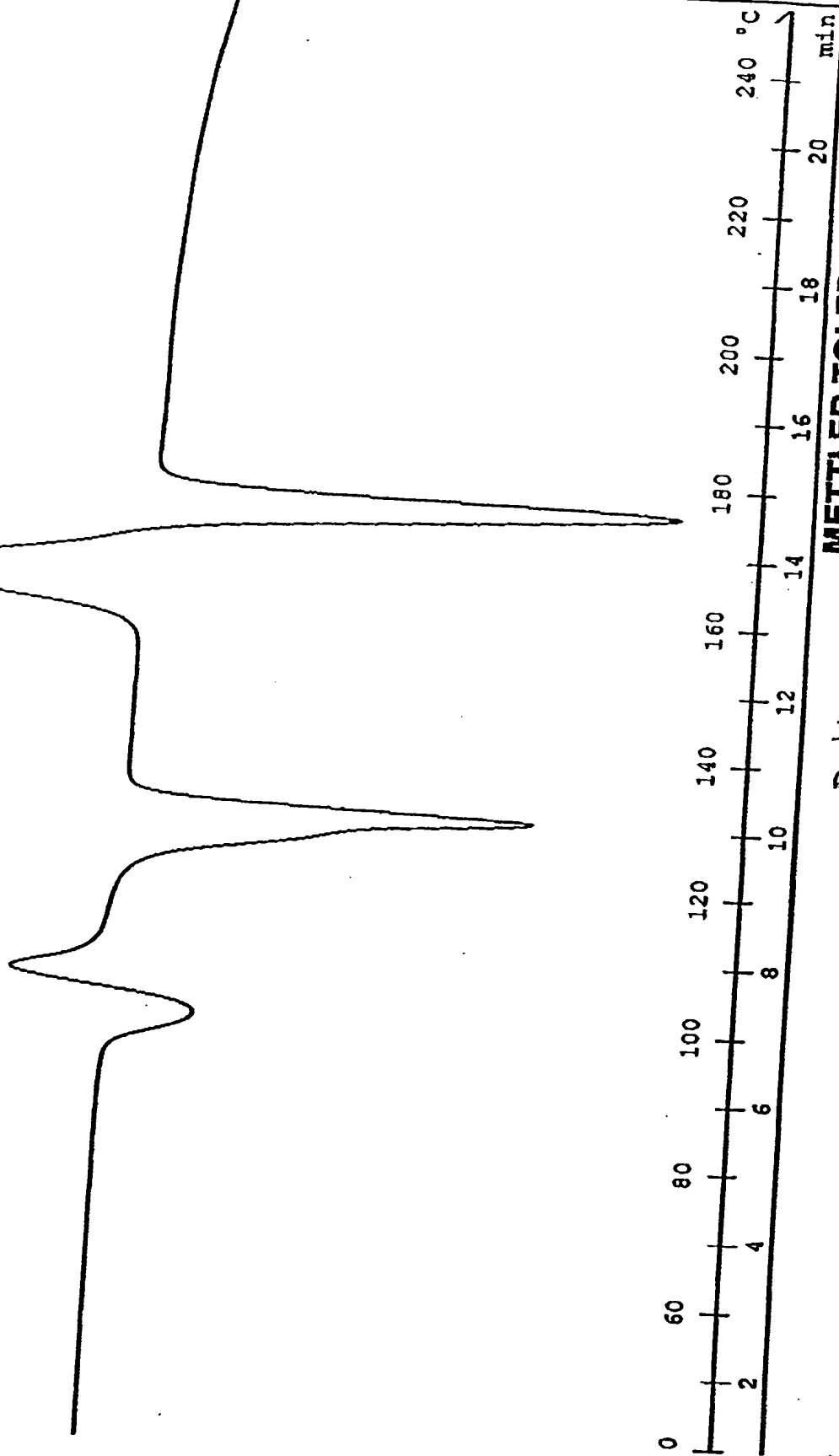
Method: 30-250°C, 10°C/min, 40ml/min N₂
30.0-250.0°C 10.00°C/min N₂, 40.0 ml/min



METTLER TOLEDO STAR® System

FIGURE 55-58
Form Delta

Method: 30-250°C, 10°C/min, 40 mL/min N₂
30.0-250.0°C 10.00°C/min
N₂, 40.0 mL/min



METTTLER TOLEDO STAR® System

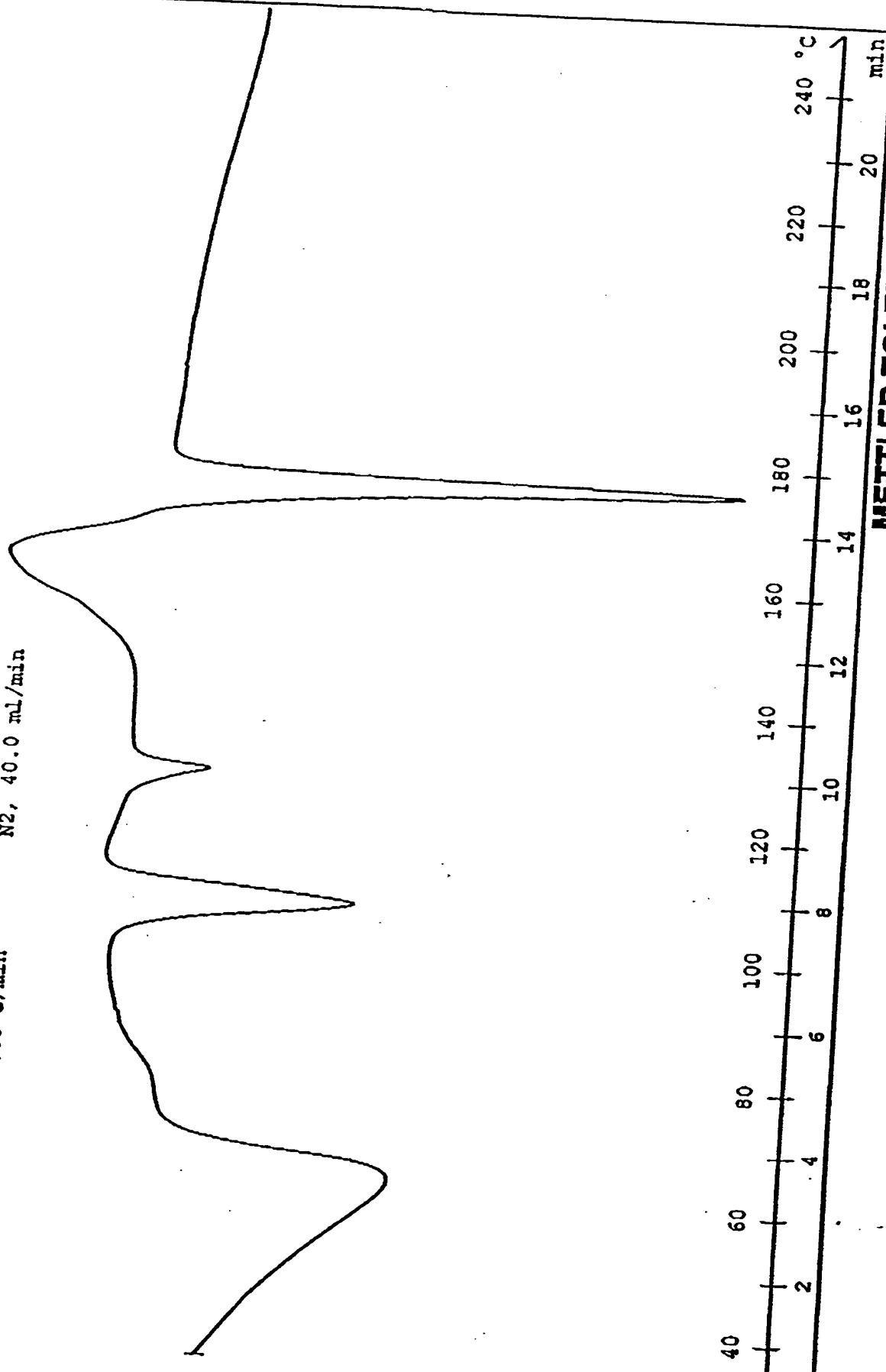
- Delta

Form Epsilon

FIGURE 59

Method: 30-250C, 10C/min, 40ml/min N2
30.0-250.0°C 10.00°C/min

N2, 40.0 ml/min

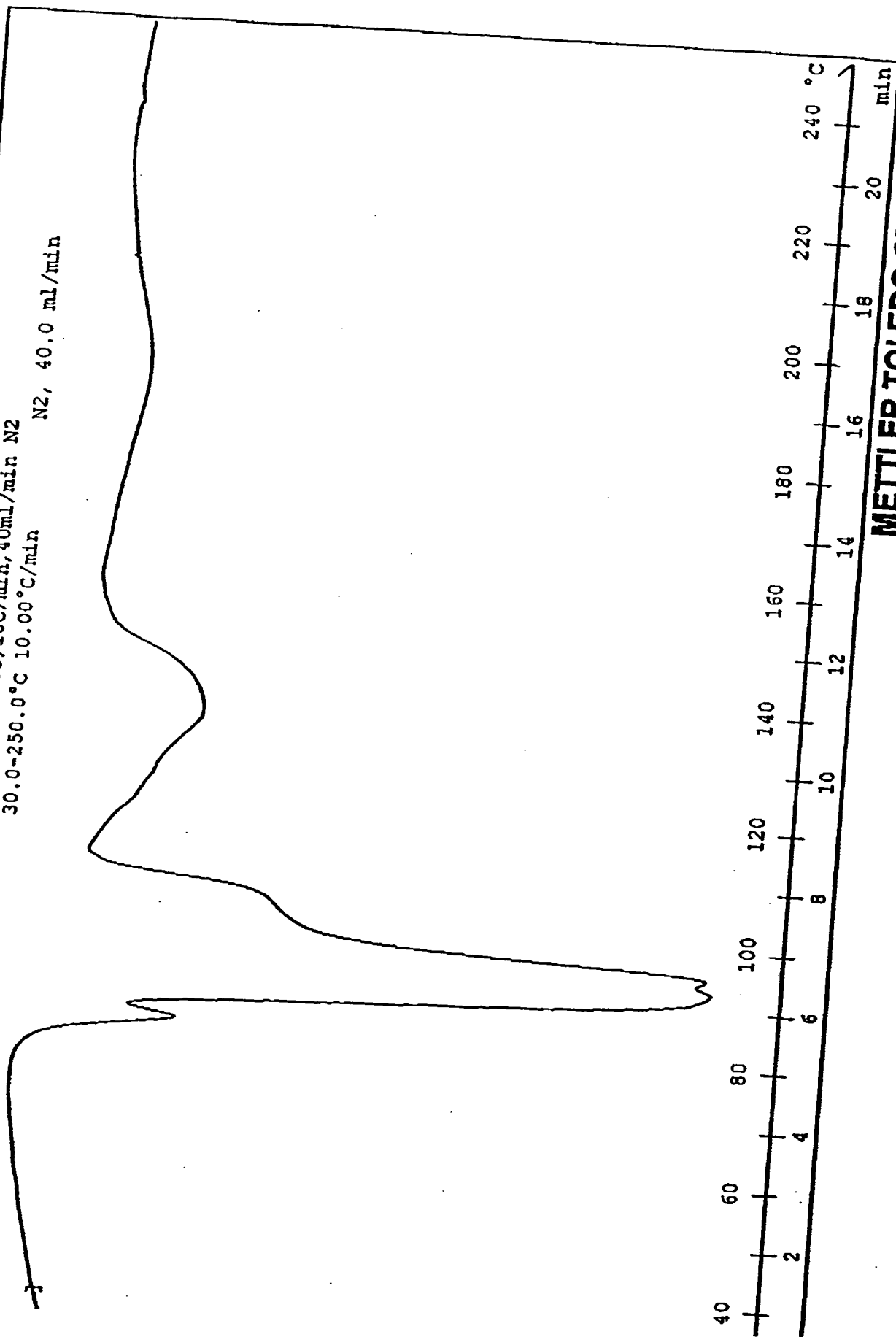


METTLER TOLEDO STAR® System

FIGURE 57
60

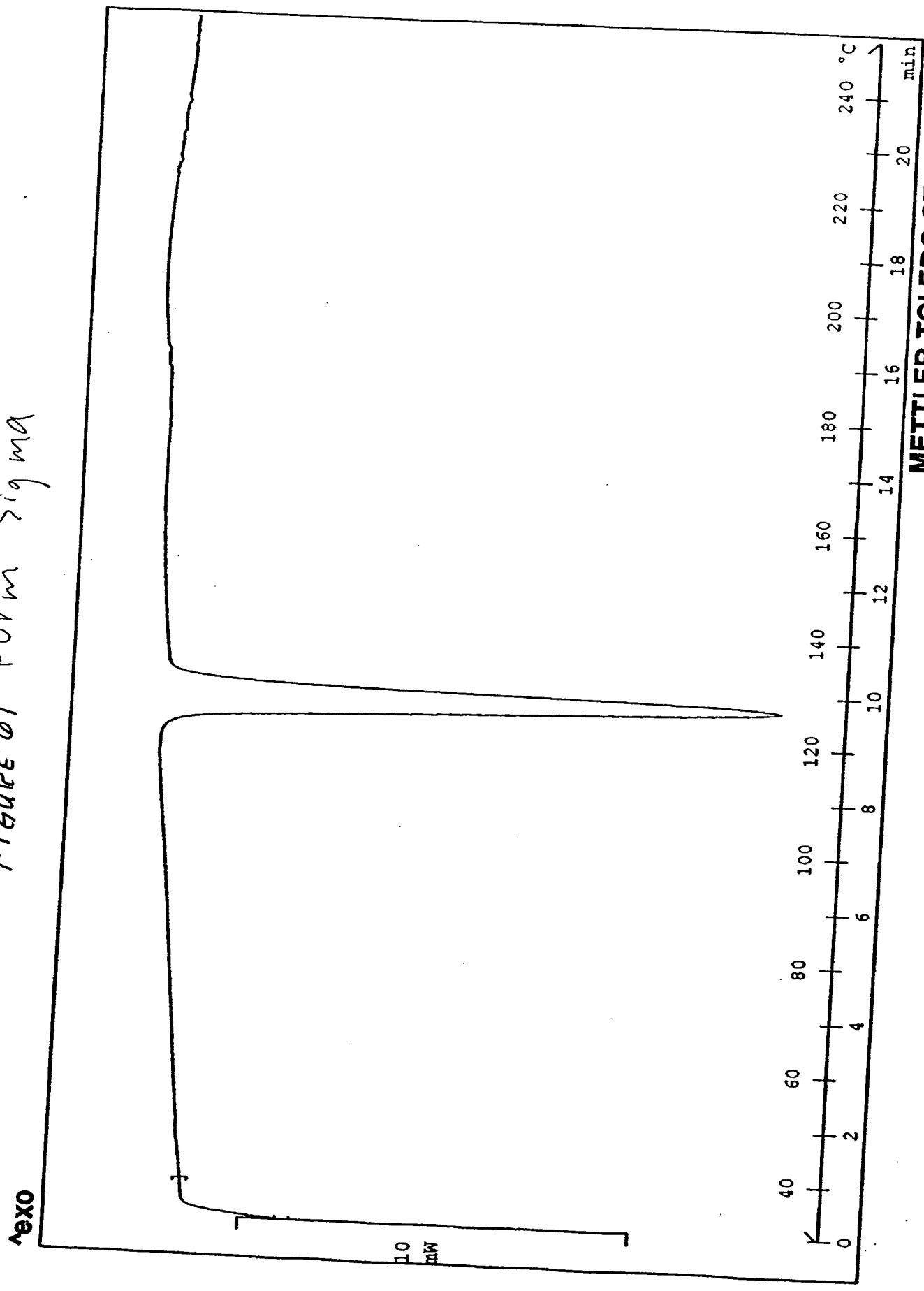
Form ~~P~~ Gamma

Method: 30-250C, 10C/min, 40ml/min N2
30.0-250.0°C 10.00°C/min N2, 40.0 ml/min



METTLER TOLEDO STAR® System

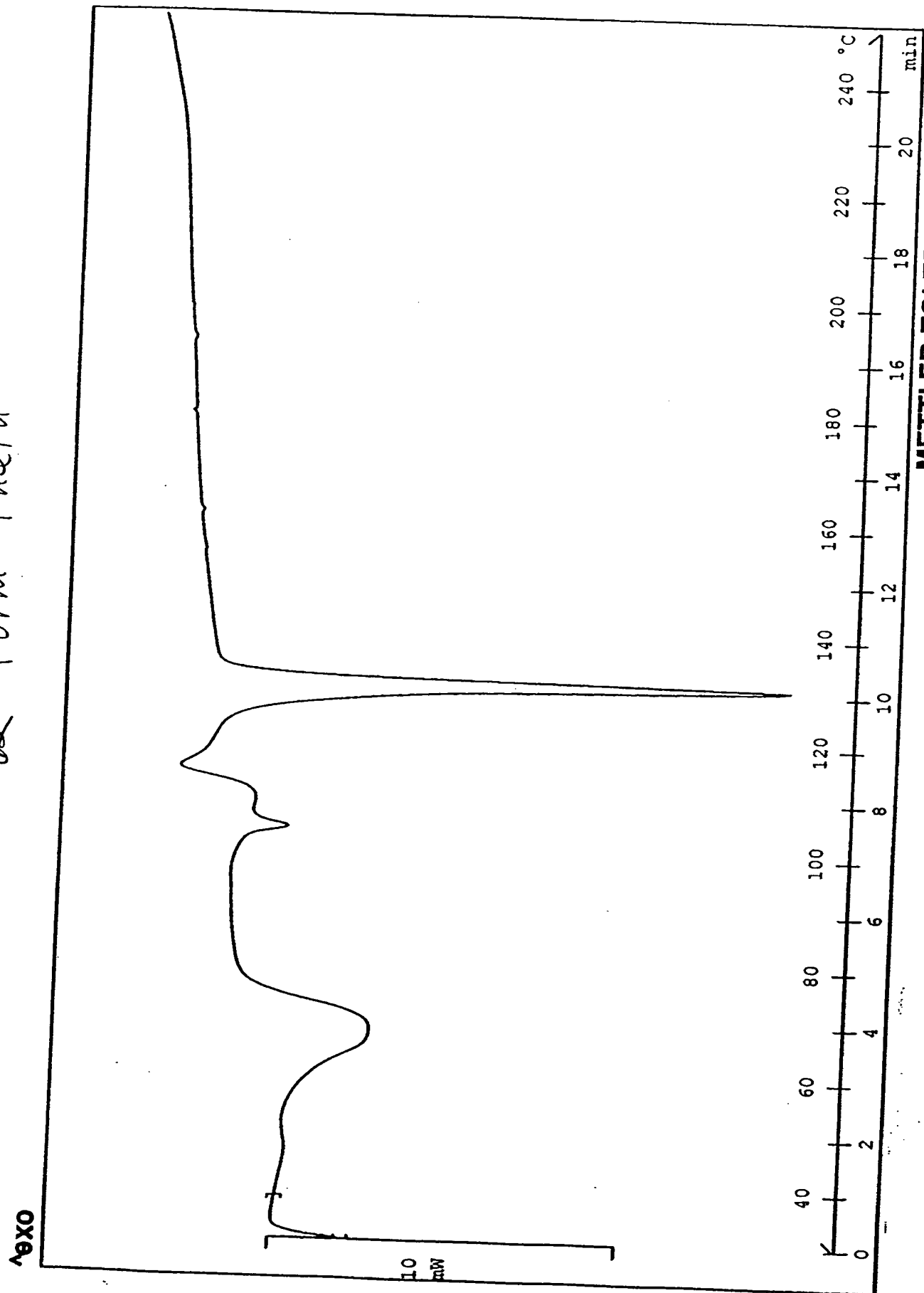
FIGURE 61 Form Sigma



METTLER TOLEDO STAR® System

Form ~ (5)

FIGURE ~~52~~ 62 Form Theta



METTLER TOLEDO STAR® System

Form Θ

Figure 63

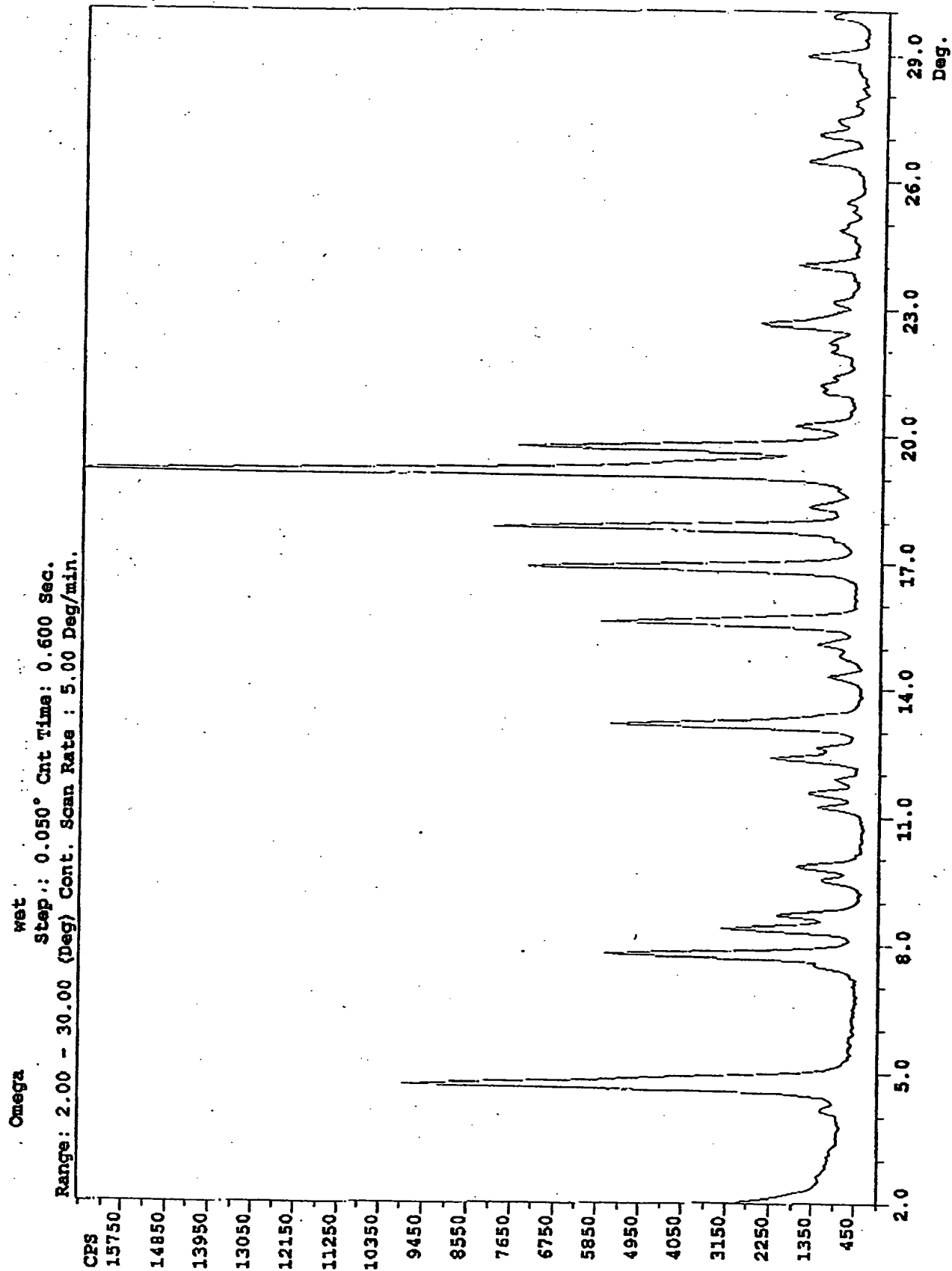


Figure 64

Comparison between the impurity profile of Nateglinide crystallized in IPA-H₂O and Nateglinide crystallized in Methanol-H₂O

Sample No	Solvent	Impurity profile by RRT [% w/w]						
		D-PA (0.23)	(0.25)	(0.46)	(0.80)	Ipcha (0.89)	Dimer (1.38)	Methyl Ester (1.51)
RL-2155/1	Methanol-H ₂ O	<0.01		0.02	<0.01	0.03	0.02	2.91
RL-2163/4	IPA-H ₂ O	<0.01	0.04		0.02	0.02	0.01	0.04
								0.03
								0.02

Note: D-PA means D-Phenyl Alanine
 Ipcha means Iso propyl cyclohexyl carboxylic acid
 Both are the starting materials of the product
 (-)-N-[(trans-4-isopropyl cyclohexane)carbonyl]-D-phenylalanine